BULLETIN No. 43

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In presenting this publication to our readers, your Editor wishes to call your attention to the work compiled and arranged by Mr. Robert R. Brown. This is the first attempt to record and arrange the British and foreign-built locomotives delivered to the Canadian and Newfoundland railways and Mr. Brown deserves our commendation for his efforts in presenting this material.

We welcome Mr. Clement Fisher, Jr. to our columns who has portrayed graphically the history of the Nevada County Narrow Gauge R. R. Also, Mr. F. Stewart Graham who has given us an interesting account of the "ten-wheeler" on the D. L. & W. R. R. Both papers are of exceptional interest. Capt. Robinson has favored us with a valuable account of the Delaware & Northern R. R. and Mr. Crittenden has contributed an interesting account of the little Wiscasset, Waterville & Farmington Railway. Lastly, we are indebted to Mr. C. J. Corliss, former Chairman of our Chicago Chapter for contributing the first of a series of papers covering the history of the Passenger Stations in Chicago, read before a joint meeting of the Western Society of Engineers and our

Chicago Chapter. The first paper on the Central Station is produced herewith and it is with regret that all of the illustrations cannot be used that were shown at the meeting.

Extra Publications

Between now and the appearance of BULLETIN No. 44, the Society plans to produce two extra publications. The first will be Part II of the Locomotives of the Chicago, Burlington & Quincy R. R., 1855-1904. This publication will be in appearance similar to Part I which was issued last summer only that it will treat of the locomotives of the C. B. & Q and its subsidiary roads prior to the 1904 renumbering. The second publication will be a compilation of the railroads in the State of Wisconsin. This will be a record of the dates of construction, the termini, additions and abandonments of all of the railroads in that state. These publications will not be numbered in our regular series of bulletins and the edition will be limited. Our members will be notified at the time of their appearance and those of you who wish copies are urged to procure them at the time of your notification.

The Pennoyer Prints

We are again calling the attention of our members to this handsome set of prints from the artist and fellow-member—A. Sheldon Pennoyer. This set is handsomely colored and depicts accurately the early locomotives and scenes. It includes "Snow Bound"—A Crampton type of locomotive used on the Camden & Amboy R. R. in the fifties, stuck in a snow drift; the "Pioneer" on the Cumberland Valley, built by Seth Wilmarth of Boston, in 1851; a Rogers locomotive drawing an express train in the seventies and, through the courtesy of the Delaware & Hudson R. R., we can include the "Stourbridge Lion", first locomotive in America and imported in 1829. The size of the "Pioneer" is 7x11"—the other three 8¼x10½" and does not include the broad white margins. The price of the set of four prints is $5.00 and orders should be addressed to Chas. E. Fisher, 51 Newbury St., Newton Centre, Mass.

Cover Design

The cover design used on this BULLETIN is from the pen of our artist and fellow member—E. Andre Schefer. It represents one of the many Rogers engines used on the old Housatonic R. R. and the scene is laid in the river valley of that name. The Society is indebted to both Messrs. Schefer and Kuhler for their kindness in furnishing us with such attractive cover designs.

British and Foreign Locomotives in Canada and Newfoundland

ROBERT R. BROWN

IN tracing the history of early Canadian railways one is immediately impressed by the large proportion of British-built locomotives. Unlike the American railroads, which imported about 120 locomotives during a comparatively brief period from 1828 to 1841, the Canadian railways imported about 350 and have continued to do so until the present time. In proportion to mileage, many more British locomotives came to Canada than to the United States but practically all writers on railway history have ignored or overlooked this interesting fact. In the past, lists of locomotives built in England for American railroads have been published in the Bulletins of this Society and elsewhere but there have been very few references to British locomotives in Canada. English writers have had little to say on the subject; the late Mr. E. L. Ahrons in his "British Steam Locomotive" mentioned only two comparatively unimportant types and Mr. J. G. H. Warren in his "Century of Locomotive Building by Robert Stephenson and Company" mentioned only one type and that incorrectly; ignoring entirely the most important one of the lot, the "Dorchester" of 1836. Mr. John Loye has described very fully some of the more important and better known types in Bulletins 18, 25 and 28 and in Mr. C. F. Dendy Marshall's "Two Essays in Early Locomotive History" there is a very brief chapter on the subject of British locomotives sent to Canada. Mr. Loye's notes are the result of much careful research work and, except for a few trifling and unimportant errors, may be considered authoritative. Mr. Dendy Marshall's list, however, is far from complete and is, in a number of cases, quite inaccurate.

It has been stated that locomotive builders in Great Britain are generally unwilling to supply information from their records but it is a pleasant duty to acknowledge the splendid co-operation of these companies; all requests for information were given prompt and careful attention and some of the builders, especially the North British Locomotive Company, undoubtedly went to considerable trouble and expense in supplying information and photographs and drawings. Messrs. R. & W. Hawthorne, Leslie and Co., the Hunslet Engine Co., the Avonside Engine Co., Andrew Barclay and Co., and Robert Stephenson and Co., all aided this work by searching through their records.

The early locomotive records of the Grand Trunk Railway were destroyed by fire in 1871 and a new Locomotive Stock Book was started in 1873. This and subsequent records are complete from 1873 to 1923, when the Grand Trunk became part of the Canadian National Railways, and another list, covering the period from 1848 to 1860, has been compiled from other official sources, so there remains only the gap from 1860 to 1873. Unfortunately a number of engines were supposed to have been received during this 13 year period from the Avonside Engine Company

and from Fairbairn and Company but as they do not appear in the Locomotive Stock Book of 1873 or in any other official record it is doubtful if they actually were received by the Grand Trunk.

The Great Western Railway had a great many British locomotives and for a long time it was supposed that the records of this road had been destroyed. Mr. W. M. Spriggs, a member of this Society, after much work and correspondence succeeded in compiling a very nearly complete roster of this road's locomotives when rather unexpectedly, in September 1933, the discovery of official lists confirmed the accuracy of his work.

The Avonside Engine Company submitted to Mr. G. W. Bishop, European Resident Director of this Society, a list of locomotives supposed to have been sent to Canadian railways but on comparing this list with records in Canada it is evident that many of them never reached Canada.

A very considerable portion of the research work in connection with this list was done by Messrs. W. M. Spriggs, I. E. Barr and G. W. Bishop, all members of the Society, and without their assistance the list would not have been possible. In many cases there is a difference of a year between the construction date and the date when the engines were put to work in Canada and in such cases the latter date is shown, whenever such difference is known. The list may be incomplete and a few of the dates are uncertain but it has been based as much as possible on official records and only in a few cases has it been necessary to depend entirely on the uncorroborated testimony of old engineers and other railway employees.

1836

CHAMPLAIN AND ST. LAWRENCE RAILROAD (C.N.R.) 4' 8½"

"Dorchester" 0-4-0 Robert Stephenson & Co., Newcastle-on-Tyne

The first locomotive in Canada; rebuilt about 1840 and converted to 4-2-0 type. Sold in 1849 to the St. Lawrence and Industrie Village Railway. Destroyed in a wreck in 1864. Additional details in Bulletin 39.

Builder's no.	127
Order booked	Oct. 26th, 1835
Engine completed	March 1st, 1836
Cylinders	9x14
Wheels, wood	48"
Boiler	78"x27"
Tubes, 1⅝" diameter	64
Firebox, length	18¼"
width	43"
height above grate bars	28"
Heating surface	213.53 sq. ft.
Grate area	5.16 sq. ft.
Steam pressure	about 60 lbs.
Tractive effort	about 1205 lbs.
Weight, empty	11275 lbs.
Weight, in working order	12563 lbs.
Nickname	"Kitten"

Phx Ph? DM P RS W

1838

GENERAL MINING ASSOCIATION, ALBION MINES RAILWAY, Pictou County, N. S.

"Samson"
"Hercules"
"John Buddle" 0-6-0 15¾x18 48" 17 tons Timothy Hackworth, New Shildon, England

These three were typical Hackworth engines and were the only ones of that type in Canada. They had cast iron plate wheels, return flue boilers and vertical cylinders connected directly to the rear pair of drivers and the piston rods were guided by Watt's parallel motion instead of the usual crossheads and bars. They were similar to the "Royal George" of the Stockton and Darlington Railway.

The "Samson" first ran in December 1838 and probably was the third locomotive in Canada. Old engineers claim that, in spite of the antiquated design, they were the most reliable engines on the line and were the best hill-climbers; they remained in regular service for over fifty years. The "Sampson" is still in existence in its original condition; it was at Chicago in 1893, at the Baltimore and Ohio Centenary in 1927 and is now kept in the Canadian National Railways station in Halifax, Nova Scotia.

Pha DM L M Y

1848

In 1847 the firm of Kinmond, Hutton and Steel, of Dundee, Scotland, built five similar locomotives for Canada and they were delivered in the following spring.

MONTREAL AND LACHINE RAILWAY (C.N.R.) 4' 9"

"James G. Ferrier" 2-2-2 13x18 72" 16 tons Kinmond, Hutton and Steel, Dundee, Scotland

"Montreal"
Probably converted to 4-2-2 type after a year or two.

Phx AS DM L T WS

CHAMPLAIN AND ST. LAWRENCE RAILROAD (C.N.R.)

"John Molson" 2-2-2 13x18 72" 16 tons Kinmond, Hutton and Steel, Dundee, Scotland

Converted to 4-2-2 type.

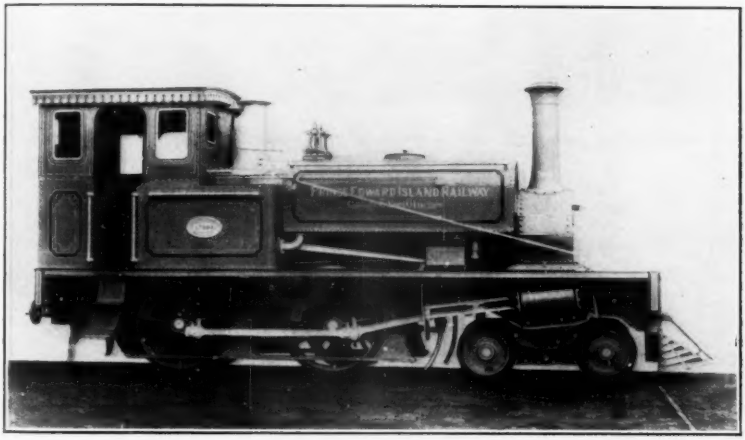
Phx AS DM L T P

ST. LAWRENCE AND ATLANTIC RAILROAD (C.N.R.) 5' 6"

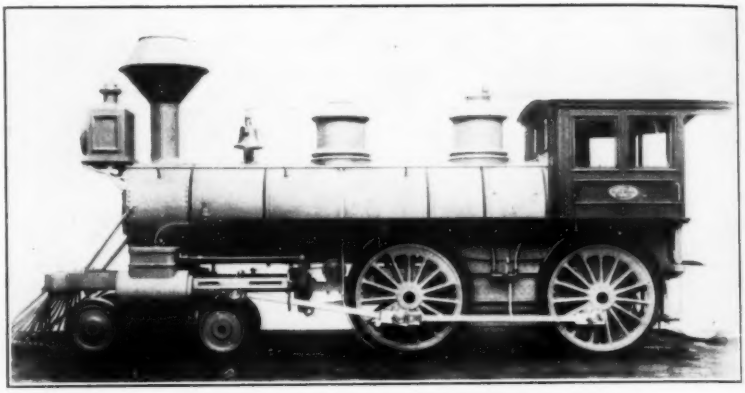
"Britannia" 2-2-2 13x18 72" 17 tons Kinmond, Hutton and Steel,
"Princess" Dundee, Scotland.

Subsequently renamed "St. Hyacinthe" and "Beloeil" and converted to 4-2-2 type. They saw very hard service and in 1853, when the line was taken over by the Grand Trunk Railway, they were reported to be so completely worn out as to be not worth repairing.

Phx GT RC SLA



Prince Edward Island Ry. #1. Built 1872 By Hunslet Engine Co., Leeds.



New Brunswick Ry. System, St. John & Maine Ry. #24. Built 1882 by Sharpe, Stewart & Co., Manchester.

Canadian Pacific Railway #985. Now #524. Built 1903 By North British Loco. Co. Similar Engines Built By Saxon Engine Works, Chemnitz, Germany.

GENERAL MINING ASSOCIATION ALBION MINES RAILWAY

"Vulcan" 2-4-0 15x24 60" R. B. Longridge & Co., Bedlington, England

Similar to fig. 59 in Ahrons' "The British Steam Locomotive."

Phx M

1850

CHAMPLAIN AND ST. LAWRENCE RAILROAD (C.N.R.)

"Canada" 0-6-0 Dimensions and builder unknown.

Better known as the "Little Greenback", possibly built by Stothert and Slaughter of Bristol, England.

P WJG

ST. ANDREWS AND QUEBEC RAILWAY (NEW BRUNSWICK AND CANADA RY.) (C.P.R.)

"Pioneer" 0-4-0 Robert Stephenson & Co., Newcastle-on-Tyne.

A very small engine with steeply inclined cylinders; ran for about sixteen years. Builder's no. 763.

Pha AS DM L

ST. ANDREWS AND QUEBEC RAILWAY

"North Star" 0-4-0 Dimensions and builder unknown.

Believed to have been the same as the "Pioneer" and probably a second-hand Stephenson engine.

1854

GENERAL MINING ASSOCIATION ALBION MINES RAILWAY

"Albion"	0-6-0	15x24	48"	16 tons	Rayne and Burn,
"Pictou"	0-6-0	15x24	48"	16 tons	Newcastle-on-Tyne

Rayne and Burn were manufacturers of mining machinery and tools and are not known to have built any other engines. These two were of a type that was obsolete even in 1854 but they were well built and very reliable. The "Albion" is still in existence; it was at Chicago in 1893 and at the Baltimore and Ohio Centenary in 1927 and at both places it was erroneously described as having been built by Timothy Hackworth in 1839 which is obviously incorrect. It is now kept in the Canadian National Railways station in Halifax, N. S.

Pha DM L M

GENERAL MINING ASSOCIATION SYDNEY MINES RAILWAY

"Halifax"	0-6-0T	12x20	60"	Builder unknown.
"Sydney"	0-6-0T	12x20	60"	Builder unknown.

Two small saddle tank engines brought out from England in 1854; in service until about 1900 and broken up several years later. Probably they were second hand.

R

GRAND TRUNK RAILWAY 5' 6" (C.N.R.)

No. 41 "Lady Elgin" 2-2-2 15x20 72" 25 tons Canada Works, Birkenhead

This was the first of an order of 56 locomotives built for the Grand Trunk Railway by Peto, Brassey, Betts and Jackson in the Canada Works, Birkenhead. They were similar to Allen's Crewe type, used extensively on the London and North Western and other railways but in Canada they were always known as the "Birkenhead" type. At first there were two types, 2-2-2 for passenger service and 2-4-0 for freight, but they were not satisfactory and the later ones were 4-4-0 type and all but three of the earlier ones were rebuilt to 4-4-0 type. As rebuilt they were remarkably successful, 30 of them were altered to standard gauge in 1873-4, and several of them ran for over fifty years. No. 41 was altered to 4-4-0 type about 1856.

Pha DM GT WS Bulletin 18

1854

GREAT WESTERN RAILWAY OF CANADA 5' 6" (C.N.R.)

Original number.	Renumber 1862			
45	58	"Atlas"		
46	59	"Pluto"	0-6-0	Stothert, Slaughter & Co.,
47	60	"Milo"	16x24	Bristol
48	61	"Elephant"	60"	
49	62	"Rhinoceros"		
50	63	"Buffalo"		
51	64	"Bison"		
52	65	"Python"		

The first of a large group of powerful freight locomotives. Later on, locomotives of this type, regardless of builder, were known as Slaughters, long after the reason for the name was forgotten; one engineer naively suggesting it was because they slaughtered more cows than any other type!

Phx GWR JC WFB WJG

1855

GREAT WESTERN RAILWAY OF CANADA 5' 6" (C.N.R.)

Original number.	Renumber 1862					
53	32	"Spitfire"	2-4-0	16x24	72"	W. Fairbairn & Son,
54	33	"Firebrand"				Canal Street Works,
55	34	"Fireking"				Ancoats,
56	35	"Firefly"				Manchester,
57	36	"Hecate"				
58	37	"Hecla"				

These were Crewe type locomotives and similar to the Birkenheads; subsequently they were altered to 4-4-0 type.

Ph? GWR JC WFB WJG

59	53	"Ajax"	2-4-0	16x24	66"	Peto, Brassey, Betts
60	54	"Titan"				and Jackson, Canada
61	55	"Minos"				Works, Birkenhead.

Subsequently altered to 4-4-0 type. In 1870 the "Minos" was rebuilt and renamed "Adam Brown".

Pha GWR JC WFB WJG

62	66	"Lion"	0-6-0	16x24	60"	Stothert, Slaughter &
63	67	"Lioness"				Company, Bristol.
64	68	"Tiger"				

Phx GWR JC WFB WJG

NOVA SCOTIA RAILWAY 5′ 6″ (C.N.R.)

No. 2	"Sir Gaspard"	2-2-0T	12x18	60″	17 tons	Neilson & Co.,
3	"Joseph Howe"	2-2-0T	12x18	60″	17 tons	Glasgow.

Light shunting and ballasting locomotives; subsequently altered to 4-2-0 type. Probably they were similar to fig. 95 in Ahrons' "The British Steam Locomotive", though naturally without the small passenger compartment. They were sold in 1869 to the Windsor and Annapolis Railway and were scrapped about 1875.

Phx NS S WY

1855

GRAND TRUNK RAILWAY

No. 5	2-2-2	15x20	72″	25 tons	Peto, Brassey, Betts and Jackson,
6	2-2-2	15x20	72″	25 tons	Canada Works, Birkenhead.
23	2-2-2	15x20	72″	25 tons	
42	2-2-2	15x20	72″	25 tons	
43	2-2-2	15x20	72″	25 tons	
44	2-2-2	15x20	72″	25 tons	
45	2-2-2	15x20	72″	25 tons	
46	2-4-0	16x20	60″	25 tons	
47	2-4-0	16x20	60″	25 tons	
48	2-4-0	16x20	60″	25 tons	
62	2-4-0	16x20	60″	25 tons	
63	2-4-0	16x20	60″	25 tons	
65	2-2-2	15x20	72″	25 tons	
67	2-2-2	15x20	72″	25 tons	
69	2-2-2	15x20	72″	25 tons	

All converted to 4-4-0 type except Nos. 23 and 45 which were altered to 4-2-2 type.

Pha GT WS Bulletin 18

1856

GREAT WESTERN RAILWAY OF CANADA 5′ 6″

Original number.	Renumber 1862						
65	69	"Tigress"	0-6-0	16x24	60″	Stothert, Slaughter & Co.,
66	70	"Leopard"				Bristol.
67	71	"Panther"				
68	72	"Vulcan"				
69	73	"Etna"				
70	74	"Stromboli"				
71	75	"Styx"				
72	76	"Castor"				
73	77	"Pollux"				

Phx GWR JC WFB WJG

74	29	"Mazeppa"	2-4-0	16x24	72″	Peto, Brassey, Betts
75	30	"Medusa"				and Jackson,
76	31	"Medea"				Canada Works, Birkenhead.

Pha GWR JC WFB WJG

77	38	"Gem"	2-4-0	16x24	72″	W. Fairbairn & Son,
78	39	"Ruby"				Canal Street Works,
79	40	"Emerald"				Ancoats,
80	41	"Sapphire"				Manchester.

These were Crewe type locomotives and similar to the Birkenheads; subsequently they were altered to 4-4-0 type.

Ph? GWR JC WFB WJG

83	50	"Ariel"	2-4-0	16x24	72"	Robert Stephenson & Co., Newcastle-on-Tyne.
84	51	"Oberon"				
85	52	"Prospero"				

In the records of Robert Stephenson & Co., these locomotives are stated to have been built for the Grand Trunk Railway which is incorrect. They were never converted to 4-4-0 type as were the similar Fairbairn and Birkenhead engines and about 1873 the "Ariel" and the "Prospero" were sold to the Midland Railway of Canada. Builder's nos. 989 to 991.

Pha DM GWR JC WFB WJG RS

1856

GREAT WESTERN RAILWAY OF CANADA

Original number.	Renumber 1862		
86	78	"Erebus"	0-6-0 (?)
87	79	"Cyclops"	
88	80	"Ixion"	

In the Great Western list of locomotives dated 1869 these three are stated to have been freight locomotives built by Robert Stephenson & Co., but this information may not be correct.

GWR JC WFB WJG

GRAND TRUNK RAILWAY 5' 6"

No. 49	2-4-0	16x20	60"	25 tons		Peto, Brassey, Betts and Jackson, Canada Works, Birkenhead.
50	2-4-0	16x20	60"	25 tons		
51	2-4-0	16x20	60"	25 tons		
52	2-2-2	15x20	72"	25 tons		
64	2-4-0	16x20	60"	25 tons		
66	2-2-2	15x20	72"	25 tons		
70	2-2-2	15x20	72"	25 tons		
74	2-4-0	16x20	60"	25 tons		
75	2-4-0	16x20	60"	25 tons		
76	2-4-0	16x20	60"	25 tons		
77	2-4-0	16x20	60"	25 tons		
78	2-4-0	16x20	60"	25 tons		
79	2-4-0	16x20	60"	25 tons		
80	2-4-0	16x20	60"	25 tons		
81	2-4-0	16x20	60"	25 tons		
82	2-4-0	16x20	60"	25 tons		
83	2-4-0	16x20	60"	25 tons		
84	2-4-0	16x20	60"	25 tons		
85	2-4-0	16x20	60"	25 tons		
145	2-4-0	16x20	60"	25 tons		
146	2-4-0	16x20	60"	25 tons		

All of these locomotives were altered to 4-4-0 type except no. 70 which was altered to 4-2-2 type. One of these was sold, in 1873, to the Carillon and Grenville Railway and it remained in service until 1914.

Pha GT WS

1856

NOVA SCOTIA RAILWAY

No. 4	"Mary Ann"	0-4-0T	10x18	42"	10 tons	Neilson & Co.,
5	"Grasshopper"	0-4-0T	10x18	42"	10 tons	Glasgow.
6		4-4-0	16x21	60"	28 tons	
7		4-4-0	16x21	60"	28 tons	

Nos. 4 and 5 were small saddle tank engines and nos. 6 and 7 were American type mixed traffic engines and they were similar to the Portlands of that period.

NS WY S

1857

GREAT WESTERN RAILWAY OF CANADA 5' 6"

Original number.	Renumber 1862					
81	42	"Diadem"	2-4-0	16x24	72"	W. Fairbairn & Son, Canal Street Works, Ancoats, Manchester.
82	43	"Diamond"				

Subsequently altered to 4-4-0 type.

Ph? GWR JC WFB WJG

GRAND TRUNK RAILWAY

Nos. 187 to 190	4-4-0	16x20	60"	25 tons	Peto, Brassey, Betts
191 to 194	4-4-0	17x20	60"	25 tons	and Jackson, Canada Works, Birkenhead.

GT WS

1858

GRAND TRUNK RAILWAY 5' 6"

Nos. 57 to 61	4-4-0	16x20	60"	25 tons	Peto Brassey, Betts and Jackson. Canada Works, Birkenhead.

GT WS

NOVA SCOTIA RAILWAY 5' 6"

Nos. 10, 11, 15, 16	4-4-0	16x21	60"	28 tons	Neilson & Co., Glasgow

NS S

1859

NOVA SCOTIA RAILWAY 5' 6"

Nos. 17 to 20	4-4-0	16x21	60"	28 tons	Neilson & Co., Glasgow

NS S

1861

GRAND TRUNK RAILWAY 5' 6"

Nos. 217 to 222	4-4-0	17x22	60"	Peto, Brassey, Betts and Jackson, Canada Works, Birkenhead.

These were the last Birkenhead engines sent out to Canada.

GT WS

GRAND TRUNK RAILWAY

Six engines 4-4-0 (?) W. Fairbairn & Son, Canal Street Works, Ancoats, Manchester.

These are doubtful as there is a gap in the existing Grand Trunk records between 1860 and 1873. They are mentioned in a report of 1860 as having been ordered and delivery expected the following year but they do not appear in the Locomotive Stock Book of 1873.

GT

1863

VANCOUVER COAL COMPANY, NANAIMO, B. C.

No. 1 "Pioneer" 0-4-0T 8x10 36"
Built in Stalybridge, near Manchester, but the builder's name is not known. This was the first locomotive in western Canada, antedating by many years the "Countess of Dufferin" and the "Curley", both of which claim this distinction.

Pha IEB

1866

VANCOUVER COAL COMPANY, NANAIMO, B. C.

No. 2 "Euclataw" 0-4-0T 6x8 30"

Built in Stalybridge but the builder's name is not known.

IEB

NEW BRUNSWICK AND CANADA RAILWAY 5' 6" (C.P.R.)

Five engines 4-4-0 16½x22 Avonside Engine Co., Bristol.

Builder's nos. 700 to 704.

These engines are shown on a list supplied by the Avonside Engine Co., but there is no record of them in Canada.

AV

1867

GENERAL MINING ASSOCIATION SYDNEY MINES RAILWAY

Stephenson 0-4-0T 10x18 43" Neilson & Co., Glasgow.
Rocket 0-4-0T 10x18 43"

These were small saddle tank shunting engines; in 1896 they became nos. 1 and 2 of the Sydney and Louisburg Railway. No. 2 was scrapped about 1920 but no. 1 remained in service until 1930.

Pha R SL NB

1868

GRAND TRUNK RAILWAY 5' 6"

Nos. 256 to 280 4-4-0 16x26 61" Neilson & Co., Glasgow.

Altered to standard gauge in 1874-5 and renumbered 55 to 79. These engines had very broad mushroom stacks and were called "Champagne glass" engines. They were American type except that they had plate frames. Builder's no. E346.

Pha DM A GT WS NB

1869

WINDSOR AND ANNAPOLIS RAILWAY 5' 6" (Dominion Atlantic Ry.)

No. 1	"Evangeline"	4-4-0	16x22	61"	Fox, Walker & Co., Bristol.
2	"Gabriel"				
3	"Hiawatha"				
4	"Blomidon"				
5	"Grand Pre"				
6	"Gaspereaux"				

These engines were an interesting blend of English and American features and were long remembered for their efficiency. Their boiler pressure was 200 pounds, which was unusual at that time and was very useful in winter In 1875 the government compelled the railway to change to standard gauge, taking the road's broad gauge engines and giving in exchange nine of the standard gauge. The six Fox, Walker engines were taken to the shops of the Intercolonial Railway at Halifax, where they were altered to standard gauge and then they were sent out west, to Fort William, to work on the construction of the Canadian Pacific Railway, then being built by the Dominion Government. Nos. 1 to 4 were taken over eventually by the Canadian Pacific Railway Company and renumbered 152 to 155.

Pha DM A C WY IEB CP

1870

DOMINION COAL COMPANY 4' 8½" (Sydney & Louisburg Ry.)

One engine 0-6-0T 12x18 37" Hunslet Engine Co., Leeds.

Later became no. 3 of the Sydney and Louisburg Railway and is still in service. Builder's no. 44.

Pha DM H SL

TORONTO, GREY AND BRUCE RAILWAY 3' 6" (C.P.R.)

Six engines	4-6-0	11x18	25 tons	Avonside Engine Co., Bristol
Five Engines	4-4-0	10x18	16 tons	

Pha AV TK

GRAND TRUNK RAILWAY 5' 6"

Two engines 4-4-0 (?) 14x20 Avonside Engine Co., Bristol.

Builder's nos. 866-7. Doubtful! These two engines cannot be traced in any Grand Trunk records and they do not appear in the Locomotive Stock Book of 1873. When Captain Tyler visited Canada in 1867 to inspect the Grand Trunk he recommended the use of Fairlie type engines and as they were being built then in large numbers by the Avonside Engine Co., it is possible that these were two Fairlies ordered by the Grand Trunk but never actually delivered in Canada.

AV

1871

TORONTO, GREY AND BRUCE RAILWAY 3' 6" (C.P.R.)

"Caledon" 0-6-6-0 Fairlie 11½x18 39" 42 tons Avonside Engine Co., Bristol

According to the records of the Avonside Engine Co., four Fairlie type engines were built for this railway but only one was actually received.

Pha AV E TK

TORONTO AND NIPISSING RAILWAY 3' 6" (C.N.R.)

"Shedden" 0-6-6-0 Fairlie 11½x18 39" 42 tons Avonside Engine Co., Bristol
1 engine 4-6-0 11x18 25 tons
Exactly the same as those supplied to the Toronto, Grey and Bruce Ry.
Pha AV B E TK

GLASGOW AND CAPE BRETON RAILWAY 3' 0" (Sydney & Louisburg Ry.)

Four engines 0-4-4-0 Fairlie 11x19 39" Avonside Engine Co., Bristol.

The records of the Avonside Engine Co., show six but only four were received by the railway. Builder's nos. 907-12.

Pha AV E

INTERCOLONIAL RAILWAY 5' 6" (C.N.R.)

15 engines 4-4-0 16x22 61" 38 tons Dubs & Co., Glasgow.

Thirteen of these engines were numbered 30 to 42 but the other two numbers are not known. Two of these engines are believed to be still in service on a lumber railway at Clark City, Que. Builder's no. 420 E.

Pha IC L NB

1872

PRINCE EDWARD ISLAND RAILWAY 3' 6"

Nos. 1 to 7 4-4-0T 10x16 42" Hunslet Engine Co., Leeds.
Nos. 3 to 7 believed sold to Newfoundland Railway in 1882.

Builder's numbers 84 to 89 and 95.

Pha DM H L

GENERAL MINING ASSOCIATION

"John Bridge" 0-4-2T 15x23 66" Fletcher, Jennings & Co.
Lowka Engine Works,
Whithaven.

Side tanks and end bunker. Intended for the Albion Mines Railway, in Pictou County, but, in 1872, the G. M. A. sold the Albion Mines. This engine was not included in the sale and it was then sent to the Sydney Mines Railway, in Cape Breton. Tradition relates that it ended its career by running off the end of the wharf at North Sydney.

M R

1874

VANCOUVER COAL COMPANY
"Nanaimo" 0-4-0T 8x10 36" Boiling and Low, Leeds (?)
Builder's no. 303.
Pha IEB

WELLINGTON COAL COMPANY
Two one-cylinder traction engines converted into locomotives by the application of flanged wheels. Purchased from the British Admiralty in 1874 but probably built much earlier.
IEB.

1878

NORTHERN AND NORTH WESTERN RAILWAY

No. 28 4-4-0 16x22 60" Dubs and Co., Glasgow.

Later Grand Trunk Ry. no. 649. Believed to have been one of the Dubs engines built for the Intercolonial Railway in 1872.

GT

1880

ACADIA COAL COMPANY ALBION MINES RAILWAY

"Sir George Elliot" 0-6-0T 15x24 48" Black and Hawthorne, Gateshead.

Later sold to the Maritime Bridge Co., New Glasgow, and remained in service until about 1920.

M

1881

INTERCOLONIAL RAILWAY

Ten engines 4-4-0 17x24 61" Dubs and Co., Glasgow.

No. 4 reno.	1052
5	1053
15	1054
40	1055
78	1056
79	1057
84	1058
86	1059

The other two are believed to have been sold to the Kent Northern Railway, where they ran until 1929, and their Intercolonial numbers are not known.

Pha IC NB

1882

CANADIAN PACIFIC RAILWAY

Nos. 20 to 45 and 230 to 233 4-4-0 17x24 63" 49 tons Dubs and Co., Glasgow.

In 1929 nineteen of these engines were still in stock. Builder's no. 1570E.

Pha CP NB

NEW BRUNSWICK RAILWAY SYSTEM (SAINT JOHN AND MAINE RAILWAY)

No. 24 4-4-0 17x24 63" 38 tons Sharp, Stewart & Co., Manchester.

Later Canadian Pacific No. 501. Builder's no. E820.

Pha CP NB

NEWFOUNDLAND RAILWAY 3' 6"

No. 1		0-6-0T	8x12	27"	11 tons	R. & W. Hawthorne,
7 reno.	20	2-6-0	13x18	40"	22 tons	Leslie & Co.,
8	21	2-6-0	13x18	40"	22 tons	Forth Banks Works,
9	22	2-6-0	13x18	40"	22 tons	Newcastle-upon-Tyne.

Builder's nos. 1884 to 1888.

Pha HL NF

1884

VANCOUVER COAL COMPANY

"London"	0-6-0T	10x12	54"		Manning and Wardle, Leeds.

IEB

1888

NEWFOUNDLAND RAILWAY 3' 6"

No. 10	2-6-2	14x20	42"	27¼ tons	R. W. Hawthorne, Leslie & Co., Forth Banks Works, Newcastle-upon-Tyne.

Builder's no. 2061.

Pha HL NF

INTERCOLONIAL RAILWAY (C.N.R.)

Nos. 33	Renumbered	1027	4-4-0	18x24	61"	Dubs & Co., Glasgow.
201		1028				
202		1029				
160		1030				
146		1031				

Builder's no. 2359 E.

Pha IC NB

1902

CANADIAN PACIFIC RAILWAY (4' 8½")

12 locomotives		4-6-0	20x26	69"	Boiler pressure	200
Original Nos.			825 to 836		Tractive Effort	25,000
Renumbered			874 to 885		Weight, on drivers	129,000
Renumbered			2074 to 2085		Weight, total	166,000
Class			E-5-e		North British Locomotive Co.,	
Builder's no.			E897		Glasgow, Scotland.	
Pha	CP	DM	NB			

1903

CANADIAN PACIFIC RAILWAY

20 locomotives	4-6-0	20x26 69"	Boiler pressure	200
Original nos.		837 to 856	Tractive Effort	25,000
Renumbered		886 to 905	Weight, on drivers	129,000
Renumbered		2086 to 2105	Weight, total	166,000
Class		E-5-e	North British Locomotive Co., Glasgow, Scotland.	
Builder's no.		E897		
Pha	CP DM L NB			

20 locomotives	4-6-0	22&33x26 cross compound, rebuilt 20x26		63"
Original nos.		981 to 1000	Boiler pressure	200
Renumbered		520 to 539	Tractive effort	28,000
Class		D-6-b	Weight, on drivers	131,900
Builder's no.		E902	Weight, total	170,600
			North British Locomotive Co., Glasgow, Scotland.	
Pha	CP DM L NB			

20 locomotives	4-6-0	22&33x26 cross compound, rebuilt 20x26		63"
Original nos.		961 to 980	Boiler pressure	200
Renumbered		540 to 559	Tractive Effort	28,000
Class		D-6-d	Weight, on drivers	131,900
Pha	CP		Weight, total	170,600
			Saxon Engine Works, Chemnitz, Germany.	

MONTREAL ROLLING MILLS Co. (Steel Company of Canada)

1 locomotive	0-4-0T 17x24 50"	Boiler pressure	160
A small industrial saddle tank engine; still in service but almost completely rebuilt.		Builder's no.	980
		Andrew Barclay Sons & Co., Caledonia Works, Kilmarnock, Scotland.	
Pha	AB		

1914

NOVA SCOTIA STEEL & COAL Co. (Dominion Steel & Coal Co.)

No. 13 "Harvey Graham" 0-8-0 crane locomotive 17x22 41" Andrew Barclay Sons & Co., Caledonia Works, Kilmarnock, Scotland.

A side tank shunting locomotive with a swinging crane mounted above the middle of the boiler. It was intended for use in the steel mill at Sydney Mines, N. S., but was not a success and the crane was discarded after about one year. It was then used as a shunting engine but its wheel base was too long for the stubby yard switches, it was taken out of service in 1920 and broken up in 1930. Perhaps its number had something to do with its unlucky career.

Pha AB DM D.S.&C.Co.

1923

NEWFOUNDLAND RAILWAY 3' 6"
Steam motor coaches.

A and B Articulated suburban coaches. Chain drive.

C, D and E Passenger and baggage type for branch line service. Transmission drive. Cammell, Laird-Sentinel Waggon Co.

Pha NF

1924

HARBOUR COMMISSIONERS OF MONTREAL

Nos. 101 to 104 0-4-4-0 Electric Shunting Locomotives — English Electric Co., Dick Kirk Works, Preston, England.

Pha HCM

1926

HARBOUR COMMISSIONERS OF MONTREAL

Nos. 105 to 109 0-4-4-0 Electric shunting locomotives — English Electric Co., Dick Kirk Works, Preston, England.

Pha HCM

1928

CANADIAN NATIONAL RAILWAYS

Nos. 9000 and 9001 Diesel-electric locomotives.

Built by the Canadian Locomotive Co., Kingston, Ont., but diesel engines supplied by William Beardmore Co., Glasgow, Scotland.

Pha CNR

1929

HARBOUR COMMISSIONERS OF MONTREAL

Special locomotive for repair and maintenance work. Gas-electric.
English Electric Co., Dick Kirk Works, Preston, England.

Pha HCM

1936

NEWFOUNDLAND RAILWAY 3' 6"

Nos. 1002 and 1003 2-8-2 18x24 48" 73 tons — North British Loco. Co., Glasgow.

Pha NB NF

ERRORS IN C. F. DENDY MARSHALL'S "TWO ESSAYS IN EARLY LOCOMOTIVE HISTORY."

Page 108 Line 5 St. Johns and Laprairie Railway should be Champlain and St. Lawrence Railroad.

15 Quotation from Sir Charles Tupper's "Note on the Development of Canadian Railways" regarding the use of horses in 1836 is incorrect. Tupper should have known better.

109 5 The three locomotives were for the General Mining Association and not for the Albion Coal Mining Co.

8 The "Samson" was more like the old "Royal George" than the "Wilberforce".

18 There is no doubt here who built the "Albion" and the "Pictou". It was Rayne and Burn.

110 2 The St. Lawrence and Atlantic was not the second railway, either chartered or built.

3 Longueuil is the correct spelling. From there to St. Hyacinthe is 29 miles and not 18.

	7	Passengers certainly did not consist largely of Indians.
	15	should be "James G. Ferrier."
	27	The "Josephine" was built by the New Jersey Loco. Works and not in England.
111	7	The Canada Works sent out fifty-six engines to the Grand Trunk and not fifty; and also six to the Great Western.
	13	The Carillon and Grenville engine survived until 1914.
	15	For the Great Western and not the Grand Trunk.
112	7	Should be "one of six".
	18	Should be 4-6-0 type and not Consolidation type.

JOHN LOYE'S ERRORS.

Bulletin 18 page	14	The first Birkenheads were 2-2-2 type and there were 14 of that type.
	15	The earliest tenders had four wheels.
	17	The "Ottawa" of the Carillon and Grenville Ry., was bought second hand from the Grand Trunk about 1873. It remained in service until 1914 and not 1916 when the road was taken over by the Canadian Northern and not the Canadian National.
Bulletin 25 page	17	The first Birkenhead, the "Lady Elgin", was 2-2-2 type.

SUITABLE ILLUSTRATIONS ALREADY SHOWN IN THE BULLETINS.

Bulletin 14 page	17	no. 234 Grand Trunk 1868 Neilson & Co. Erroneously described as a rebuilt Portland.
Bulletin 18 page	10	No. 50 Grand Trunk 1856 Birkenhead. Shows 2-4-0 type after conversion to 4-4-0 type.
	13	"Ottawa" Carillon and Grenville Ry. ex G. T. R.
	15	No. 69 Grand Trunk 1855 Birkenhead. 2-2-2 type after conversion to 4-4-0 type.
	18	"Ottawa" Carillon and Grenville Ry.
25 fig.	V	Same as Bulletin 14 page 17.
fig.	VIII	Same as Bulletin 18 page 10.
fig.	IX	"Ottawa" Carillon and Grenville Ry.
Bulletin 28 page	32	"Prospero" Great Western Ry. 1856 Stephenson.
Bulletin 31 page	22	"Samson" Albion Mines Ry. 1838 Hackworth.
		"Albion" Albion Mines Ry. 1854 Rayne & Burn.

REFERENCES AND SOURCES OF INFORMATION.

A—The British Steam Locomotive by E. L. Ahrons.
AB—Andrew Barclay & Co., Kilmarnock.
AS—Development of the Locomotive by Angus Sinclair.
AV—Avonside Engine Company, Bristol.
B—The railways of Ontario by Wm. H. Breithaupt.
C—Clark's History of the Earliest Railways in Nova Scotia.
CP—Canadian Pacific Railway, Official Records.
DM—Two Essays in Locomotive History by C. F. Dendy Marshall.
E—Engineering, London.
GT—Grand Trunk Railway, Official Records.
GW—Great Western Railway of Canada, Official Records.
H—Hunslet Engine Company, Leeds.
HCM—Harbour Commissioners of Montreal.
HL—R. & W. Hawthorne, Leslie & Company, Newcastle upon Tyne.
IC—Intercolonial Railway—Official Records.
IEB—Mr. I. E. Barr, Train Dispatcher, Esquimalt and Nanaimo Railway, Victoria, B. C.
JC—Mr. John Cameron, formerly engineer on the Great Western Railway, Hamilton, Ont.

L—The Locomotive, London.
M—Mr. Edward B. Mitchell, formerly engineer on the Albion Mines Ry., Stellarton, N. S.
NB—North British Locomotive Co., Glasgow.
NF—Newfoundland Railway, Official Records.
NS—Nova Scotia Railway, Official Records.
P—Mr. E. J. W. Pangborn, grandson of first engine driver in Canada, Colton, Cal.
R—Mr. J. J. Robertson, formerly engineer on the Intercolonial Ry., Sydney Mines, N. S.
RC—Report of the Railway Committee of the Parliament of the Province of Canada—1851.
RS—Robert Stephenson & Company, Darlington.
S—Mr. D. A. Story. Various official positions with the Nova Scotia and Intercolonial Railways.
SL—Sydney and Louisburg Railway. Official Records.
SLA—St. Lawrence and Atlantic Railroad. Official Records.
T—Railways of Canada—1871, by J. W. & Ed. Trout.
TK—Tackabury's Atlas of Canada—1875.
W—Railways of Great Britain by F. Whishaw.
WFB—Mr. W. F. Baines, formerly engineer on the Great Western Railway, Hamilton, Ont.
WJG—Mr. W. J. Grant, formerly an official of the Great Western Railway, Hamilton, Ont.
WS—Mr. W. H. Sarjeant, formerly locomotive inspector on the Grand Trunk Railway, Montreal.
WY—Mr. Wm. Yould, formerly Master Mechanic and Locomotive Superintendent on the Windsor and Annapolis and Dominion Atlantic Railways, Kentville, N. S.
Y—Timothy Hackworth and the Locomotive by Robert Young.

Pha—Authentic photographs or drawings in existence.
Phx—Rough, but probably accurate, drawings or pictures of similar engines in existence.
Ph?—Pictures or drawings in existence but of doubtful accuracy.

Delaware and Northern R. R.

By Capt. Winfield W. Robinson

A story of this enterprise, the ambitions and struggles of its promoters, would seem to be interesting because it was the last independent steam railroad constructed in New York State and got into operation just previous to the coming of the automobile and improved highway.

It was organized November 14, 1904 as the Delaware & Eastern Railroad Company. Immediately upon the granting of the certificate by the State Board of Railroad Commissioners, July 28, 1905, the construction began, under the supervision of Frederick P. Lincoln, late Superintendent of Maintenance of the Susquehanna Division of the Delaware & Hudson Railroad, and early in June of the following year about fourteen miles was in full operation and the balance of the first segment graded ready for the ties and rails.*

The main line, 37½ miles, single track, standard gauge, extended from a connection with the New York, Ontario & Western Railway in the village of East Branch, following the valley of the east branch of the Delaware River, in an easterly direction, to a connection with the Ulster & Delaware Railroad at Arkville, all in Delaware County. The formal opening of this portion was held November 17, 1906, the first official through train being operated on that day. A branch line, from Union Grove to Andes, was completed in March 1907 and the first train ran on the 23rd of that month. This made trackage of 47 miles and with switches and sidetracks a total of 50 miles.

The promoters of this line organized the following subsidiaries:

Schenectady & Southwestern Railroad Company, incorporated May 28, 1906, to construct a single track steam railroad, commencing at Arkville and running northerly through Grand Gorge, Prattsville, and following Schoharie Creek to Breakabeen, Middleburgh, Schoharie and Delanson to connections with the New York Central, West Shore and Delaware & Hudson railroads at Schenectady, and with the Boston & Maine at Scotia and Rotterdam Junction, a total mileage of 90. July 28, 1906 by re-incorporation the name of this company was changed to the Schenectady & Margaretville Railroad Company, the reason given in the application to the Board of Railroad Commissioners being "so that the terminal points may be included in the name."

Hancock & East Branch Railroad Company, incorporated July 12, 1906, to commence at East Branch, running in a northerly direction, following the east branch to Hancock on the Delaware River, connecting there with the Erie, thence in a southwesterly direction to Honesdale, Pittston and Wilkesbarre in Pennsylvania, a distance of 95 miles. The portion of the line in Pennsylvania was incorporated in that state as the Hancock & Wilkesbarre Extension Railroad Company.

The purpose in mind was a coal carrying railroad of 232 miles, continuous from the mines around Wilkesbarre to the connections at and

* They made use of the grade of the Arkville & Andes Railroad commenced in the eighties and never completed.

near Schenectady and a through coal road to Boston by way of the B. & M. The engineers who laid out the road and its proposed extensions estimated that their line was 60 miles shorter from the Pennsylvania coal fields than that of any other existing carrier, with much lighter grades and consequent lower operating costs.

Surveys were completed from East Branch to Wilkesbarre and the route mapped, but it never reached the stage of construction.

A contract was let for the building of the Schenectady & Margaretville and a right of way was graded along its route from Grand Gorge to Breakabeen, with culverts, bridges, abutments, etc.

The project was backed by men of most excellent character and high standing in the business world, including bankers of Paterson and New York City, coal operators of Scranton and Wilkesbarre and steel magnates of Pittsburgh, among them being Colonel William Barbour, a director of the Hanover National Bank of New York City, Joseph J. Jermyn, a large anthracite coal operator of Scranton, John W. Griggs, former U. S. Attorney General and Governor of the State of New Jersey, the Guaranty Title & Trust Company of Pittsburgh, and many other prominent persons and financial institutions.

The officers of the company were: President, Frederick F. Searing of Paterson, banker; First Vice President, Alfred C. Fairchild, Paterson, banker and brother-in-law of Mr. Searing; Second Vice President; Russell Murray of New York City; Secretary-Treasurer, Harry M. George of Dover, N. J.; Chief Engineer, O. F. Wagenshurst of New York City; General Counsel, Edward J. Welch of New York City; Superintendent, Russell B. Williams of Scranton. Principal office was at 7 Wall Street, New York City.

The Catskill Mountain News of Margaretville, N. Y., in its issue of January 11, 1907, had this to say of Mr. Searing:

"It takes no small amount of determination and indomitable courage to carry on a contest for the right of way, charters, etc., for a new and important line of railroad in the State of New York at the present time, for there are nearly always concerns in existence that will fight the project to the last ditch. A man who has the will power and financial resources at his command to win over these obstacles, has recently conducted a successful contest before the State Railroad Commission, a contest in which Margaretville was vitally interested.

This man is Frederick F. Searing, head of the banking house of F. F. Searing & Company, of 7 Wall Street, New York City. It is his firm that is financing the new through line of railroad between Schenectady and Wilkesbarre, and recently secured charters from the railroad commission covering all of the line.

Mr. Searing is president of the Delaware & Eastern Railroad, that portion of the new line already constructed, and will doubtless act in the same capacity when all the links from Schenectady to Wilkesbarre are connected. At the head of so important a railroad system he is bound to become a figure in the circle of men now guiding the destinies of the great railroad lines of this country.

Mr. Searing was born in Dover, N. J., December 26, 1867. He was educated in the schools of his native village and later attended the Mt.

First Train on the D. & E. R. R. October 28, 1905.

D. & E. #4. April 7, 1909. Stone Dock at Shinhopple, N. Y. WayFreight in Siding for Passenger Train. Locomotive, the First No. 3.

Anthony Seminary at Bennington, Vt. For the first fifteen years after leaving school, Mr. Searing followed the banking business, his first position being with the Bank of the Republic of New York City, later on with the National Union Bank of Dover, and finally he was for ten years successively receiving and paying teller of the Paterson National Bank of Paterson, N. J. While occupying this last position he studied law and was admitted to the bar in 1899. He practiced law in Paterson for a period of two years, during which time he demonstrated ability as a lawyer and built up a lucrative practice. While the practice of law was very agreeable to him, he was quick to see and seize opportunities for the establishment of new banking institutions. It was through his efforts that the Citizens Trust Company of Paterson, the Dover Trust Company of Dover, the Newton Trust Company of Newton, and lastly the Downsville National Bank were formed. He gave up the practice of law to assume the duties of vice president of the Citizens Trust Company, which bank he had organized. These institutions are all very successful and are today in a flourishing condition.

About four years ago the banking house of Searing & Company was established in New York City, Mr. Searing being the senior member of the firm."

General offices for the railroad were opened in Margaretville in September 1905 with John J. Conway of Norwich, formerly with the N. Y. O. & W., as Chief Clerk. A large locomotive and car repair shop was built on the outskirts of Margaretville and suitable, well-planned depots were erected in all the villages along the line. A contract was entered into with the National Express Company and the wire communication was the Western Union Telegraph.

The first change in the original company was the incorporation, May 17, 1907, of the Delaware & Eastern Railway Company, as a reorganization and consolidation of the Delaware & Eastern Railroad, the Schenectady & Margaretville Railroad, the Hancock & East Branch Railroad, and the Hancock & Wilkesbarre Extension Railroad, with capital of $5,000,000 and first mortgage bonds of $6,500,000. The new company had the same official family as its predecessors, with an increase in the number of directors.

April 1906 the officers estimated the prospective yearly earnings of the then completed road as follow: Milk $109,500; Lumber, stone, merchandise, feed, etc., $90,000; Passengers $33,750; total $233,250. Operating expenses $139,950. Net earnings $93,300.

The general balance sheet as of December 31, 1907 shows the cost of the road as $1,993,838 and the cost of equipment $108,978.

The annual report for the year ending June 30, 1908 showed earnings $90,804, made up of passenger $29,381, freight $55,038, miscellaneous $6,385; operating expenses $117,054, taxes $6,154, total $133,208.

The annual report for the year ending June 30, 1909 showed earnings $102,119, comprised of freight $65,634, passenger $30,751, miscellaneous $5,734; operating expenses $126,254, taxes $9,420, total $135,420; deficit $118,762; deficit forwarded $117,824; total deficit $236,586. Last interest on bonds paid July 1, 1908.

Serious financial difficulties were encountered early in 1909. From the newspaper accounts of that day it is not clear just what brought on all the troubles, but they seem to have descended on the little railroad like a bolt of lightning from the sky. Old residents of the locality tell of a proposed bond issue to finance new construction, which was to be underwritten by a trust company in the eastern part of New York State, which was not gone through with because of a suit against the railway company instituted in New York City just at this time allegedly on account of non-payment of interest on a previous bond issue. Work on the construction of the Schenectady & Margaretville extension was thereupon abruptly stopped. November 25, 1909 a contracting firm filed suit in the Supreme Court against the railway company to recover $126,000, claimed to be due for construction of part of the railroad.

February 26, 1910 Andrew M. Moreland and Walter B. Trowbridge were appointed receivers by the United States District Court, and the road was so operated until the formation of the—

DELAWARE & NORTHERN RAILROAD COMPANY, incorporated October 14, 1911, as a reorganization of the Delaware & Eastern Railway Company. Purchase of the line of the bankrupt company which was sold under foreclosure August 16, 1911, for $150,000, to William H. Seif of Pittsburgh, chairman of the reorganization committee, in the interest of the bondholders. The officers of the Delaware & Northern were: President, Andrew M. Moreland of Pittsburgh, an officer of the Guaranty Title & Trust Company; First Vice President, William H. Seif of Pittsburgh, connected with the steel interests; Second Vice President, Joseph J. Jermyn of Scranton; Secretary-Treasurer, Howard Feist of Pittsburgh; Traffic Accountant, Andrew C. Benjamin of New York City; Superintendent, James J. Welch of Margaretville. Principal office at Margaretville.

Moody's Analysis of Railroad Investments shows the following results under the new reorganization: 1913 surplus $10,638; 1914 surplus $4,648; 1915 surplus $2,683; 1916 surplus $9,314; 1917 surplus $4,021; 1918 deficit $16,574; 1919 deficit $19,908; 1920 deficit $29,392; 1921 deficit $10,491; 1922 surplus $5,395; 1923 deficit $12,746; 1924 deficit $14,600.

March 16, 1921 the affairs of the company were placed in the hands of receivers Andrew M. Moreland and James J. Welch and the railroad continued operation under this receivership through the year 1928.

In April 1925 the Andes Branch, due to lack of patronage, was abandoned and the rails taken up. This left the main line, East Branch to Arkville, 37.52 miles, for operation.

December 15, 1928 the property and franchise of the Delaware & Northern Railroad was sold to Samuel R. Rosoff of New York City, a subway builder and contractor for $70,000, pursuant to a decree of the United States District Court. The corporation was thereupon reorganized as the DELAWARE & NORTHERN RAILWAY COMPANY, certificate of reorganization July 22, 1929.

At the time of purchase Mr. Rosoff made this statement to the newspapers in New York City:

"I took steps way back in 1921 looking toward the purchase of this railroad. I have bought bankrupt plants before and have put them on a paying basis by using sound every-day business methods. I bought this railroad for the purpose of rebuilding it and making it a success. I intend to relay the road with new rail, remodel the bridges and stations and put on new cars and locomotives, which I am now purchasing. This road is now carrying milk and cream and its territory is one of the biggest milk producing sections in Delaware County. The road is now losing the largest share of the business because the milk is being hauled away to creameries for the lack of equipment on this railroad."

Ten years previously Mr. Rosoff had built a state improved highway through Margaretville and was well and favorably known in that section. Upon his visit to the village, after the purchase of the railroad, he received an enthusiastic reception by the residents who were happy at the change in ownership and the plans for improvement. A locomotive and several passenger coaches in good condition were purchased to take the place of an old worn out engine and the wooden coaches, the right of way and track were straightened and many other improvements made.

In the early years of the road it enjoyed a large traffic in flag and paving stones from the quarries through the valley, logs, lumber, tan bark, charcoal, wood alcohol, lime and a good milk business. There were independent creameries at Margaretville, Dunraven, Andes, Shinhopple, Pepacton, Union Grove, Shavertown and Downsville, and a train load of milk was transferred daily to the N. Y. O. & W. at East Branch. This traffic was so important that when the road was opened Webb Harrison of Middletown, Milk Agent of the N. Y. O. & W., was induced to accept a similar position with the D. & E., later becoming General Freight and Passenger Agent. When he resigned to devote his entire time to his creamery interests along the line of the N. Y. O. & W., he was succeeded by Charles C. Kaufman of Andes as Milk Traffic Manager.

Notwithstanding the sincerity and courageous efforts of its directorate and the efficient and conscientious service of its officers and employees, the railway, like most short line roads of today, is having a hard time to hold its own against unregulated motor truck, bus and private automobile competition. Coal, supplies and materials reach the valley via motor transportation. Massive milk trucks haul their loads from the local creameries to the markets in the metropolitan district. The paving and flag stone shipments, once so important, disappeared with the increased use of cement. The mountain sides have been stripped of their timber, there is no lumber to be shipped out, and the chemical plants are closed because the wood supply is exhausted.

A gasoline motor car makes two round trips daily to handle the mail, expressage and passengers. A freight train, operated by steam, takes care of the long haul, carload and other heavy shipments.

The City of New York expects to commence work in a few months on the construction of a large reservoir for its water supply which will take up practically the entire valley from East Branch to near Margaretville. This is a big undertaking and will take probably ten years to complete. The railroad will be busy while this work is in progress hauling materials, equipment, supplies, etc., and undoubtedly will enjoy a profitable

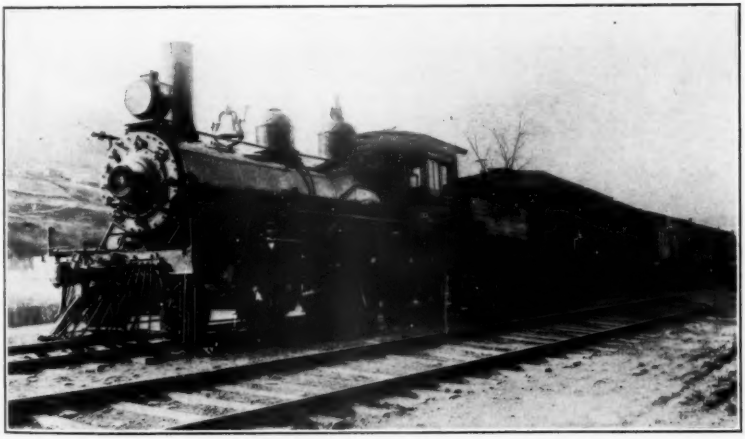
business. In fact, this work could not be carried on without a railroad. When the dam is completed and the reservoir basin flooded, the present right of way of the D. & N. will be under water. A new road bed can be constructed along the mountain side, but with all the villages and farms gone, the residents removed to other parts, where will the traffic come from?

Two officials connected with the early history of this railroad deserve particular mention. First, Russell B. Williams, who was well along in years when he went with the D. &. E. He was born in the middle west April 3, 1844, was graduated from the Ohio Wesleyan University in 1865, entered railway service in 1883, between which year and 1891 he was successively assistant roadmaster of the Little Miami, Columbus & Xenia, conductor on the Cincinnati & Indiana, agent and yardmaster for the Wabash, St. Louis & Pacific, conductor on the Cincinnati Southern, superintendent of construction from Kingston to Schenectady and trainmaster on the New York, West Shore & Buffalo, and superintendent of the New York & New England at Fishkill Landing, N. Y. In May 1892 he was appointed superintendent of the Scranton Division of the N. Y., Ontario & Western. He was a close friend of Joseph J. Jermyn of Scranton, financially interested in the newly formed D. & E., and secured a leave of absence from the O. & W. to superintend the construction of the D. & E. line. Several months later he resigned his position with the O. & W. and was appointed superintendent of the D. & E. He worked untiringly in the interest of this company from the time of the first survey until receivership, and what operating success the road did attain in its early days was due largely to Mr. Williams. When he left the company he went into retirement and lived but two or three years.

Secondly, Mr. James J. Welch of Margaretville, at present Vice President and operating head. Mr. Welch came from New York City when the road was first opened, being appointed train dispatcher October 1, 1906. He rose to superintendent, general manager and was one of the late receivers. He has stuck to the company faithfully through many long trying years and deserved a great deal of praise for what has been accomplished the past twenty years.

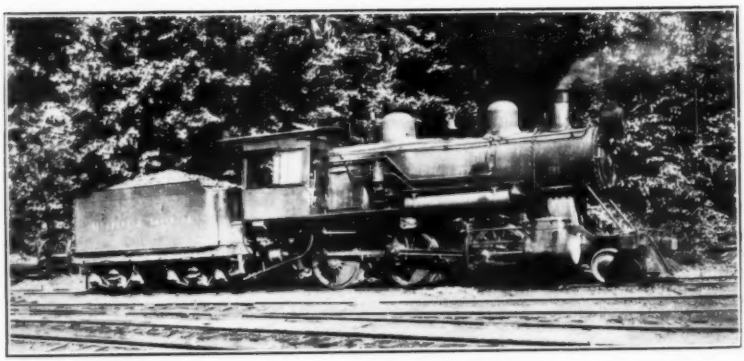
Note should be taken of some of the original experienced subordinates who were most helpful in the formative years. Of the engineers, Isaac N. Phillips of Middletown came from the N. Y. O. & W.; Edward Smith of Carbondale from the D. & H.; Eno O. Strong of New York City from the Manhattan Elevated Railroad; Walter A. Pattberg of Weehawken from the West Shore; Clarence Cowan of Arkville from the U. & D.; and William Hubbard of Andes from the U. & D. Mr. Pattberg is now Master Mechanic of the D. & N., and Mr. Cowan is the senior engineer. The early train conductors were Thomas Monahan and William D. Brown of Scranton from the O. & W.; Samuel Fullerton of Downsville from the Cooperstown & Charlotte Valley; Lewis E. Sanford of Kingston from the U. & D. To these men, when they relinquished their former positions, the prospects for the D. & E. looked bright, with a proposed main line, branches and sidings of 250 miles and a profitable volume of traffic.

D. & E. Dunraven Station.



D. & N. #4. Left to Right: Lewis E. Sanford, Conductor; Walter A. Pattberg, Engineer; Frank Oliver, Fireman, Howard Liddle, Brakeman; Elliott Gladstone, Trainman; John Fowler, Baggageman.

D. & E. First No. 3.



D. & N. Locomotive No. 10.

LOCOMOTIVE ROSTER.

DELAWARE & EASTERN

DELAWARE & NORTHERN

Number	Name	Builder	Built	Type	Original Railroad	Purchased From and Year.	Final Disposition.
1 (1st)	F. F. Searing	Cooke	1884	4-4-0	Delaware, Lackawanna & W.	Fitzhugh, Luther & Co., 1905	Scrapped
1 (2nd)	....	Baldwin	1903	4-4-0	Chicago & Eastern Illinois	American Equipment Co., 1911	Scrapped
2 (1st)	R. B. Williams	Dickson	1884	4-4-0	D. Lackawanna & W.	Fitzhugh, Luther & Co., 1905	Scrapped
2 (2nd)	....	Baldwin	1903	4-4-0	Chicago & Eastern Illinois	American Equipment Co., 1911	On hand in service.
3 (1st)	A. C. Fairchild	Dickson	1883	2-6-0	D. Lackawanna & W.	Fitzhugh, Luther & Co., 1906	Scrapped.
3 (2nd)	....	Baldwin	1902	4-4-0	Chicago & Eastern Illinois.	American Equipment Co., 1911	On hand in service.
4	H. M. George	Dickson	1884	4-4-0	D. Lackawanna & W.	Fitzhugh, Luther & Co., 1906	Rebuilt and changed to No. 6.
5	Russell Murray	Dickson	1882	4-4-0	D. Lackawanna & W.	Fitzhugh, Luther & Co., 1906	Scrapped
6	....	Dickson	1884	4-4-0	D. Lackawanna & W.	Originally No. 4	Scrapped
7	....	Brooks	1900	4-6-0	Buffalo, Roch. & Pittsburgh	Southern Iron & Equipment Co., 1923	Scrapped
10	....	Lima	1910	2-6-0	Emporia Mfg. Company.	Birmingham Rail & Loco. Co., 1929	On hand in service.

A "Days of Gold" Railroad

By Clement Fisher, Jr.

CALIFORNIA has long been known as the "Forty-Niner" State of the Days of Gold, for it was in California in 1849 that gold was discovered and a great westward trek toward the Pacific was begun. The small golden flakes which created a furor, the like of which has seldom since been seen, were picked up by John Marshall and Captain Sutter on the latter's saw-mill plant on the American River, a tributary of the Sacramento River. The larger outeroppings of the rich ore were to be found in the headwaters of both the Sacramento and its tributaries, headwaters which flowed down from the Sierra Nevada Mountains.

Generally speaking, it was in the American River Canyon basin that the veins and pockets were located and for the greater part these were situated in what is now Nevada County, California, twenty miles back in the hills from the Colfax Station of the Central Pacific Railroad. So, in this locality there mushroomed overnight the mining camps of Rough-and-Ready, You Bet, Grass Valley, Nevada and many others. For many years these camps grew and prospered, and the inhabitants thereof extracted large amounts of the earth's golden treasure.

Being located so far away from the centers of population, which at that time consisted of Folsom where connection could be made with the Sacramento Valley Railroad and Sacramento, terminus for the River steamers and the Southern Pacific, there was considerable difficulty in getting freight and supplies in to the various mining camps. Horse-drawn wagons and stages were the only means of transit, and the roads, being in a practically continuous state of mud and mire, were certainly not factors which expedited this form of transportation.

This then was the situation which existed for some twenty-three years, nearly a quarter of a century, until in 1873, John F. Kidder, Charles Loughridge, Edward Brown and George Fletcher, all prominent citizens of Grass Valley, one of the largest of the mining towns in Nevada County, banded together for the purpose of constructing, operating and maintaining a railroad which was to connect Grass Valley and Nevada, together with adjacent towns, with the Central Pacific Railroad at Colfax by means of a projected route some twenty-three miles in length.

Because of the topography of the land, it became apparent that a narrow-gauge railroad would be necessary to facilitate getting around the sharp curves and steep grades which would be necessary in the construction of such a road. Then, too, a narrow-gauge road would be much cheaper to build and equip. Both of these factors are most likely the best answers to the question which is sometimes asked, as to why the road has never been made over to a standard-gauge line, thus permitting the switching and inter-change of cars with the Southern Pacific at Colfax and thus eliminating the necessary repacking of cars at the Colfax freight depot.

Like all other railroad companies of the period, the Nevada County Narrow Gauge Railroad, as the new line was to be called, applied to the

Federal Government for land grants and bond subsidies. The land, to the extent of a right-of-way, was granted, but not the bonds. Instead, the railroad was given the irrevocable right to charge a fare of ten cents per passenger-mile and to assess freight tariffs much higher than those of railroads which had been given financial aid by the government. For that reason, one can travel from San Francisco to Sacramento for the same fare that is charged from Colfax to Nevada City.

The financing of the railroad, therefore, was accomplished by the issuing of stock in the railroad company. John Colman, one of the large owners of the present-day Idaho Maryland Mine (which is still one of the heaviest-producing mines in the state) furnished a lion's share of the capital by subscribing for an immense block of the stock and the remainder of the shares were purchased by other residents of Grass Valley and Nevada City, twin termini of the historic railroad.

A word about the latter town. It has been referred to in this narrative both as Nevada and Nevada City, and "thereby hangs a tale". When the town was a mere mining camp, a trader by the name of Caldwell opened a merchandise store in the middle of the camp. The locale therefore became known as Caldwell's Upper Store, because the trading post was situated on a hill. Followed then a period of hell-raising, rip-roaring days, during which the more sane of the citizens decided that law and order must be enforced. So, a Mr. Stamps was elected alcade, the camp was declared to be a town, and *voila!* the town was christened Nevada, a name of either Indian or Spanish derivation.

Now, Nevada City wishes the whole wide world to know that it was NOT named for the *state* of Nevada, nor is it located therein. It lies well within the boundaries of California and bore the name of Nevada fully ten years before the state of Nevada came into being. When the Mormon Territory was admitted to statehood, it took Nevada as its name, much to the aroused indignation of the town, which protested violently to the government. All the satisfaction that it got, however, was the addition of "City" to its name to distinguish it from the state.

With Mr. Kidder heading the movement, work started on the new railroad which was to connect the now-important towns of Grass Valley and Nevada City with the rest of the world, so to speak. The actual clearing of the right-of-way and the laying of the roadbed and rails was accomplished by "home talent" in something like a year and a half's time, and on May 10, 1875, the Golden Spike, marking the completion of the road and the commencement of operation of the line, was driven at Nevada City. A heavy cannon had been dragged by some miners to the top of Sugar Loaf, a large peak overlooking Nevada City, and a blast from the firing-piece greeted Train Number One as she swung around the last curve into the Nevada City Station, thus completing her first revenue trip from Colfax. Both Grass Valley and Nevada City turned out *en masse* for the day, and the military companies, fire departments, civic bodies and the bands of both towns joined in a monster parade. It is interesting to note in passing that this custom of joining forces for the day is still observed by the two towns on the Fourth of July, when both towns still turn out for a joint celebration, the locale alternating between Nevada City and Grass Valley from year to year.

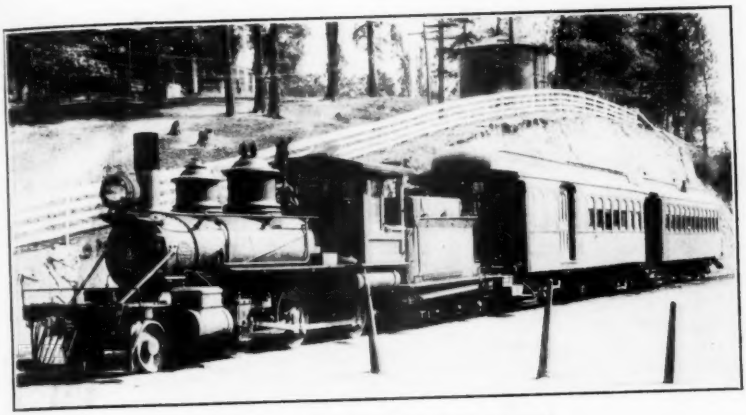
A mammoth grand ball was held in Grass Valley on the evening of the Nevada County Narrow Gauge's opening celebration, illumination for which was provided by the headlight of Engine No. 1 of the railroad, the light having been borrowed from its customary place for the purpose of lighting the Town Hall for the festivities. The trains were jammed with passengers not only on the great First Day, but for many days afterward.

Yes, that May 10th *was* a great day, and well it might be, for this twenty-three mile, three-foot-gauge line was to mean much to the inhabitants of the towns and mining camps along the right-of-way. For twenty-five years since the founding of Nevada City as a town proper, freight had cost as much as two thousand dollars a ton and never less than two hundred. The variance in rates was regulated, one might say, by the conditions of the roads over which the freight travelled, carried by the horse-drawn "express" vehicles. With the railroad in service, the towns could receive merchandise consigned to them in about two days at less than two dollars per ton from San Francisco to Nevada City.

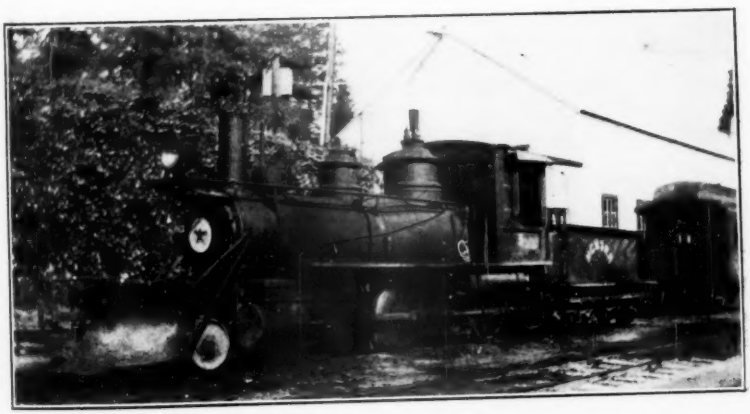
The route of the Nevada County Narrow Gauge Railroad still continues today along the same route that it did when it was constructed with the exception of a three-mile stretch which was relocated and which shortened the road by that much distance, besides eliminating four bridges and a tunnel. After leaving Colfax, where the railroad connects with the Southern Pacific (it was the Central Pacific when the narrow-gauge was opened, and the Central Pacific itself was barely ten years old at the time), the right-of-way suddenly dips down around a curve and a sharp grade into Long Ravine where the Nevada County Narrow Gauge is crossed by the Southern Pacific. This sharp grade presents an interesting study. The uniformed passenger would be quite certain that the east-bound trip to Nevada City is down-hill most of the way, whereas the narrow-gauge actually climbs some 82 feet from the altitude at Colfax. It is because of the steep grade into Long Ravine and a very gradual rise during the remainder of the trip that this down-hill illusion is created.

At Long Ravine was located one of the four bridges which was abandoned when the line was relocated. Two miles further along is the new steel cantilever bridge over Bear River. This bridge is 810 feet long and cost $72,000 to build, replacing a wooden structure built with a Howe Combination Truss span. The deck of this new bridge was burned off during a large forest fire in 1927, but it was redecked with only eleven days delay in rail service which isn't very bad when one considers the remote location of the bridge.

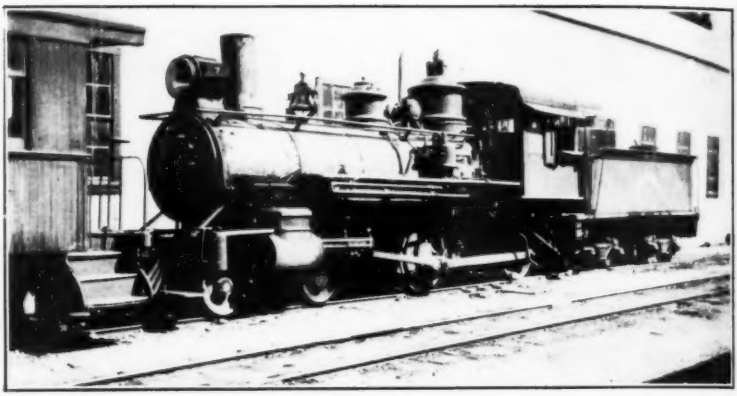
The famous old mine of You Bet, worked hydraulically, is located a few miles north of Bear River. The station siding also served as a spur for the King & Walford Lumber Mills which are now abandoned. The You Bet mine was reopened some years ago and is operating on a limited scale. A little further along the line was Shebley's Station where a State Fish Hatchery was once located. The use of cyanide in the process of ore refining so polluted the streams of water which served the hatchery that the entire plant had to be moved to another part of the state.



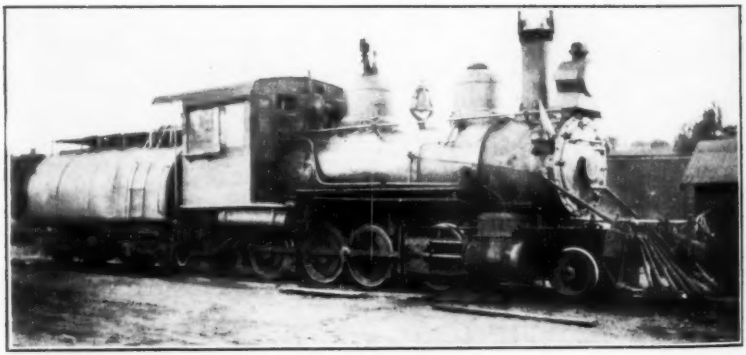
N. C. N. G. #2 on Train #4 at Colfax, California.



N. C. N. G. #5 at Grass Valley Shops.



N. C. N. G. #7 at Grass Valley, California.



N. C. N. G. #8 at Colfax, California.

The tunnel now in use by the Nevada County Narrow Gauge is located at Town Talk, between Grass Valley and Nevada City. The use of this tunnel, 15 feet in height and 480 feet in length, is particularly interesting because there is much action underway at the present time to eliminate grade crossings through construction of underpasses and overhead bridges. Perhaps the Nevada County Narrow Gauge's tunnel was the first structure to accomplish this although the tunnel was constructed many years before the present series of projects got underway. How? Well, the State Highway passes directly over the middle of the hill through which the railroad tunnel extends.

One-half mile away from the tunnel is the six-hundred foot Gold Flat Trestle, after crossing which the track swings around a sharp curve, passes through the railroad yards and turns into the Nevada City station, the end of the line, where the trains are turned and watered, freight unloaded for reshipment by truck and wagon into the more mountainous parts of the state not served by railroads, and passengers destined for Nevada City or adjacent mines disembark.

Though a small railroad in size and equipment, the Nevada County Narrow Gauge Railroad is by no means behind its larger contemporaries in making every effort to keep all possible business. The railroad connects with the Southern Pacific at Colfax for freight and passengers, a subsidiary truck line operated by the Nevada County Narrow Gauge hauls freight between Nevada City, Grass Valley, Auburn and Sacramento, while a buss system connects with the Pacific Greyhound Buss System at Auburn, a short distance away from Colfax but on a different transportation route.

The twenty-mile trip is a most scenic one, passing through some of California's most beautiful scenery. Just about every possible type of mining equipment and operation can be seen: hydraulic mining, placer, open-face, shaft-works, rocker, riffle, pan-and-shovel, many plants of which are abandoned on the mountain-sides, as well as a great deal of valuable mining equipment, the latter being too expensive to remove for resale, hence its abandonment. There is even a complete aerial tramway across Deer Creek Canyon, but today it too is silent and rusting. Many of these abandoned workings are being reopened what with the price of gold having doubled, due to America's abandonment of the gold standard. Every week, Nevada County newspapers carry news items of these renewed activities with their attendant opportunities for reemployment of and opportunity for the local citizens.

But all this is getting a little ahead of the road's past history. Following its opening in 1875, the Nevada County Narrow Gauge was swamped with business, both passenger and freight, running many extras to take care of the tonnage and passengers unloaded at Colfax by the Central Pacific for reshipment. But, like many other railroads, business declined with the beginning of the present century, until finally in 1913 Mr. Charles Loughridge, the last General Manager for the original Nevada County Narrow Gauge Railroad Company, decided to accept the offer of the Sacramento Northern Railway, an electric interurban rail-

road operating between San Francisco, Sacramento, Chico and Marysville, from which latter town stage connections can be made for Nevada City. The offer of the electric railroad was to purchase, maintain and operate the narrow-gauge steam road, which it did until 1926.

But the Nevada County Narrow Gauge had been too much an active part of the people and country around Nevada County, too much a "home-owned, home-operated" activity; so, in 1926 local business men repurchased the stock of the railroad from the Sacramento Northern, which was quite willing to sell at that time, deciding that its investment in a steam road had not been a wise one despite the fact that the little road had at one time returned very high dividends on its stock. Under the direction of the President, J. E. Taylor, and the Board, George Calanan, J. C. Terrell, F. F. Cassidy, and William Tamblyn, the road has weathered the recent depression and is now on the crest of a rising wave of traffic.

Three round trips daily were scheduled for the railroad at its opening and this still prevails except when winter snows necessitate the delaying of a trip or two until the plow clears the drifts, though this is rarely the case. Service is mixed except when there are trips where there is no freight to carry or switching to be performed. At such times, the motor car is placed in service to carry passengers and mail. This motor coach has earned an indelible place for itself in the history of the road and has been christened "Casey Jones". A coach body built onto a flanged-wheeled chassis, it is typical of the many motors serving short lines throughout the country. Likewise traditional is the "monicker" of the afternoon west-bound train which is titled the "Cannonball Express". This came about due to the fact that much of the freight is carried on this train, as well as a large amount of switching being performed on the east-bound trip to Nevada City with the result that the train pulls into the eastern terminus rather late at times. Inasmuch as the same train connects with the only west-bound afternoon train on the Southern Pacific main-line at Colfax on the return trip, the engineer of necessity keeps the throttle wide open nearly all the way on the west-bound trip of the narrow-gauge so that the mail and passengers will arrive in Colfax on time for the Southern Pacific connection. To the road's credit, it must be said that seldom if ever has the "Cannonball Express" or any of the other scheduled trains, for that matter, failed to arrive in Colfax "on the advertised."

A consistently high safety record has been maintained by the line, although a somewhat serious accident occurred in July, 1933, when a train parted on a heavy grade, and a freight car and passenger coach ran away. In typical adventure story style, the freight car was carrying a shipment of dynamite. Neither of the two passengers in the coach at the time, an elderly lady and a young man, tried to jump from the car during its wild descent. The young chap tried to check the cars' headway with the hand-brake but the momentum was too great. When they finally jumped the track and took the ditch near the Idaho Maryland Mine, the young man sustained only minor cuts and bruises, but his

fellow passenger, the elderly lady, suffered severely from shock and internal injuries. Both of the cars were so badly wrecked that they had to be junked. The dynamite? Fortunately, it was of a sufficiently inferior grade so that it did not ignite and explode when so severely jolted.

The rolling stock of the Nevada County Narrow Gauge consists of two or three combination mail-passenger cars, several coaches and about forty freight cars. The equipment has had an interesting history for the most part, much of it coming from the Southern Pacific's Narrow Gauge Lines, the Nevada-California-Oregon, and possibly the Carson & Colorado.

Locomotive No. 8 was formerly Denver, Rio Grande & Western Locomotive No. 183, while Locomotive No. 9 was once Southern Pacific Narrow Gauge Locomotive No. 1 and Nevada-California-Oregon Locomotive No. 14 before that. Quite recently, the Nevada County Narrow Gauge purchased Engine No. 1 of the long-defunct Lake Tahoe Railway & Transportation Company, but contrary to popular opinion and report, the engine will not be rebuilt for service. Its parts will be interchanged with Locomotive No. 5 where this seems necessary. Locomotive No. 7 has just been scrapped, and Nos. 8 and 9 are still in active service.

The Nevada County Narrow Gauge Railroad is indeed an interesting and very active part of California's glorious golden past. It appears that it will remain in operation for some little time, too. Several years ago, it petitioned for abandonment, but this was denied by the Railroad Commission. Early this year, a trucking firm applied for a franchise to operate between Sacramento and Nevada City over a route paralleling the narrow-gauge. The franchise was denied, however, with the notation that to grant it would jeopardize the future of the railroad which had long been rendering a vital service to the community. Thus the Railroad Commission's perhaps unintentional tribute to the Nevada County Narrow Gauge, a railroad from the "Days of Gold."

LOCOMOTIVE ROSTER.

Engine No.	Builder	Year Built	Type	Cylinders	Drivers	Weight
1	Baldwin	1875	4-4-0			21 tons
2	Baldwin	1875	2-6-0			21 tons
3	Baldwin	1875	4-4-0			21 tons
4	Baldwin	1875	0-6-0			15 tons
5	Baldwin	1875	2-6-0			25 tons
6	Baldwin					
7	Baldwin	1877	4-4-0			21 tons
8	Baldwin		2-8-0			38 tons
9	Baldwin	1914	2-8-0			40 tons

NEVADA COUNTY NARROW GAUGE RAILROAD COMPANY.

EASTBOUND WESTBOUND

First Class					First Class	
4 Mixed Leave Daily	2 Mixed Leave Daily	Miles from Colfax	Time Table No. 152 July 8, 1934 *STATIONS*	Capac'y Sidings Cars	1 Mixed Arrive Daily	3 Mixed Arrive Daily
PM 12:45	AM 6:00	0	P Colfax O T	Yard	AM 11:20	PM 4:35
			0.8			
f 12:47	f 6:02	0.8	Oilville	8	f 11:18	f 4:33
			1.2			
f	f	2.0	Smith Flat	10	f	
			1.5			
f	f 6:12	3.5	P Bear River	8	f 11:08	f 4:23
			1.7			
s 1:05	s 6:20	5.2	P Chicago Park W	15	s 11:02	s 4:17
			1.1			
f 1:10	f 6:25	6.3	Coleman	20	f 10:56	f 4:11
			2.2			
f 1:20	f 6:35	8.5	P Peardale	12	f 10:48	f 4:03
			1.0			
f	f	9.5	P Hatton	3	f	f
			1.5			
f 1:30	f 6:45	11.0	P Cedar Kress	15	f 10:38	f 3:53
			1.5			
f	f	12.5	Union Hill	20	f	f
			2.5			
s 1:55	s 7:35	15.0	P Grass Valley	Yard	s 10:22	s 3:37
			3.0 WO T			
f	f	18.0	Glen Brook	10	f	f
			0.5			
f 2:10	f 7:55	18.5	P Town Talk	5	f 9:53	f 3:08
			2.0			
2:20 PM	8:05 AM	20.5	P Nevada City W T	Yard	9:45 AM	3:00 PM
Arrive Daily	Arrive Daily				Leave Daily	Leave Daily

WEST-bound trains are superior to EAST-bound trains of the same or inferior class. See Rule S-72.
SEE RULE 108—In all cases of doubt or uncertainty, the safe course must be taken and no risks run.

Lv—Leave Ar—Arrive
P—Telephone T—Turntable
W—Water stat. O—Oil

SIGNS AND CHARACTERS

g HH

The following signs indicate:
f—Flag stop to receive or discharge passengers or freight.
s—Regular stop.

Copy of the time-card for the Nevada County Narrow Gauge. Most of the stations listed are former mining camp stops, but today haven't even a station building to mark them.

The Ten-Wheeler on the Delaware, Lackawanna & Western Railroad

By F. Stewart Graham

THE ten-wheeler, or 4-6-0 type, was the first to be used in revenue service on the railroad which eventually became the Main Line of the Lackawanna Railroad. This excludes, of course, engines Pioneer and Spitfire used for construction purposes. The Lackawanna & Bloomsburg Railroad, later the Bloomsburg Division, used ten-wheelers as early as 1862, and the Morris & Essex Division, while it never favored the 4-6-0 type, received three from Baldwin's in 1868. None of the other constituent lines acquired prior to 1900 had any ten-wheelers, therefore, this type as a unit of power, was confined almost entirely to the Main Line.

In 1851, the Lackawanna and Western received three inside connected ten-wheelers from Rogers, Ketchum and Grosvenor. These engines were named *Capouse, Lackawanna* and *Tunkhannock* and bore construction numbers 272, 262 and 266 respectively. They had 18″x22″ cylinders and 77″ diameter driving wheels, and were changed to outside connected at an early date.

The first era of the ten wheeler extended from 1851 to 1870, when the type was superseded by the mogul, or 2-6-0 type. The engines of this period possessed certain distinguishing features, which identified them as a class peculiar to the Lackawanna Railroad. The cylinders were noticeably inclined, with the horizontal center line well above the center line of the driving wheels. The engine truck wheels were set close together, and the center pin of the engine truck was set considerably ahead of the cylinders. The engines of this class built between 1860 and 1865 had two-bar guides with an oversize alligator crosshead, from which was driven the water pump mounted on a rigging known locally as "slabsides". The slabsides were supported at the front end by studs screwed into the rear of the cylinder barrel, outside, and by cross yokes bolted to the frames between the first and second pairs of drivers. The later engines used the one-bar Laird guide and crosshead, the guide being about six inches square. Water pumps were driven from the cross-head, but were supported in a more conventional manner. In later years, when the water pumps were replaced by injectors, slabsides were removed in case new cylinders were applied, but many of the old locomotives carried this early type pump support until they were scrapped in the early 1900's.

There were eighty-four ten-wheelers of this early period on the Main Line. This included a small number of engines built originally as 0-6-0 and 2-6-0 types, which were changed to ten-wheelers when that wheel arrangement had proved itself satisfactory.

Engines 58 and 59, the *Investigator* and *Decision*, built by Danforth, Cooke & Co. in 1857, are generally credited with being the first engines on the road to successfully burn anthracite coal, which was in later years

to have a most important influence on the design of Lackawanna engines, as well as engines of all other roads in the anthracite district. The 58 and 59 were ten-wheelers and the fore-runners of the so-called "camel backs", with fireboxes hung in back of the rear drivers.

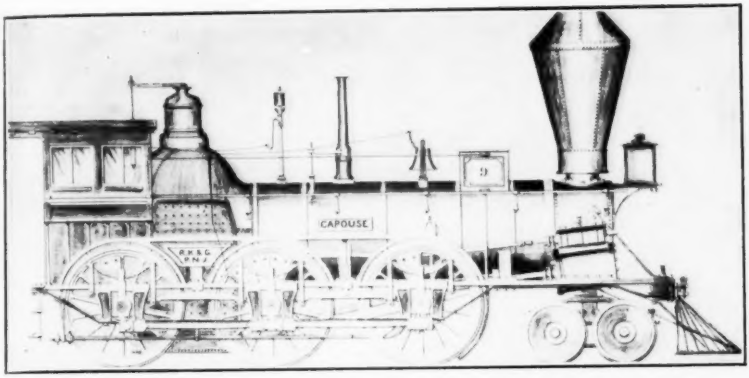
In 1880, the D. L. & W. received its first "culm burners" from Danforth, Cooke and Co. They were consolidations and were so successful in burning the small sizes of anthracite that, almost immediately, the company started to convert their lump coal burners to center cab culm burners. Prior to this time the hard coal burned was in large sizes, similar in appearance to run-of-mine soft coal. The smaller sizes, from pea down to dust, were discarded as waste. The discovery that this waste could be satisfactorily burned in a firebox of large area, keeping the fire bed comparatively shallow, resulted in the design of a firebox so wide, that it was necessary to place the cab ahead of it. Foremost among the experimenters and developers of the culm burning firebox were the Philadelphia & Reading and the Lackawanna. The noted engine designer, Wootten, patented the idea of using a combustion chamber in conection with the wide firebox, and eventually all wide fireboxes became known as the Wooten firebox, whether equipped with combustion chamber or not.

The conversion to culm burners covered all types in service, viz: 0-6-0, 2-6-0, 4-4-0 and 4-6-0. The first to be changed was a yard engine named *Hercules*, an 0-6-0 yard engine built by Danforth, Cooke and Co., in 1855. The second was probably No. 102, the *New York*, which was built at Scranton Shops in 1869, the first engine to be built by the railroad company. This was a ten-wheeler originally named *Walter Dawson*, and changed to New York in 1876.

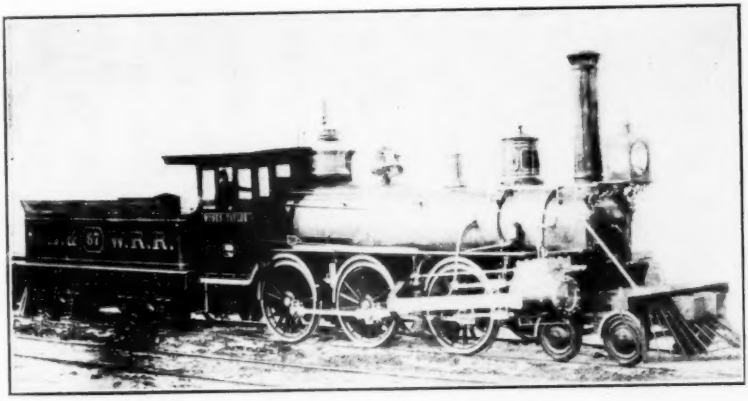
The extensive rebuilding which these engines received in converting them to culm burners greatly prolonged their lives. For example, engines *Niagara* No. 8 and *Mehoopany* No. 31, were built in 1852 and 1856. They were converted to burn culm in 1898 and 1899, and were scrapped in 1923 and 1924, having been in service 71 and 68 years respectively. From what few company records are available, it seems that several ten-wheelers may have been experimentally changed to moguls. Very few of the engines of this early period which were not converted to wide firebox, survived beyond 1900.

In the years from 1870 to 1892, no new ten wheelers were constructed, but in the 1890's, responding to a demand for freight and passenger engines of greater capacity than the existing moguls and American type engines, two culm burning ten-wheelers were built for the Morris & Essex Division, and five for the Main Line. The first two, Nos. 161 and 162, were built by Cooke in 1893. In 1892 Baldwin had furnished No. 16, a Vauclain four-cylinder compound, with cylinders 14″ & 24″x24″ and 63″ driving wheels. This was followed, in 1893, by a Cooke cross compound, No. 17, cylinders 21″ & 30″x26″. Both compounds were later changed to single expansion engines.

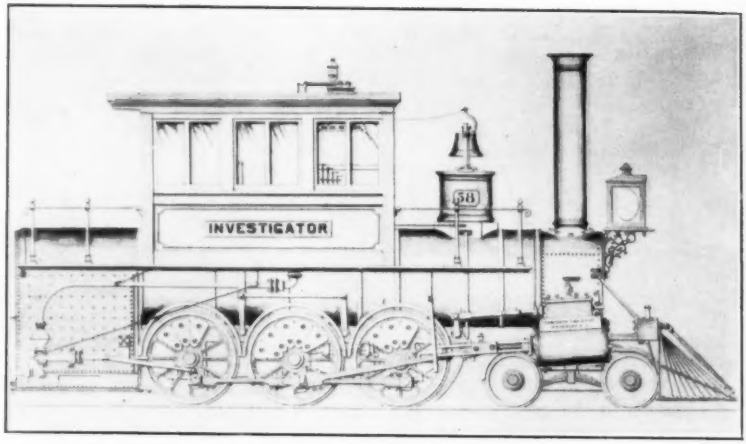
Engines No. 15 and No. 7 were built at Scranton Shops, in 1893 and 1898, by Master Mechanic David Brown. According to legend, his No. 15 did not perform as well as No. 16, the Baldwin compound, and Mr.



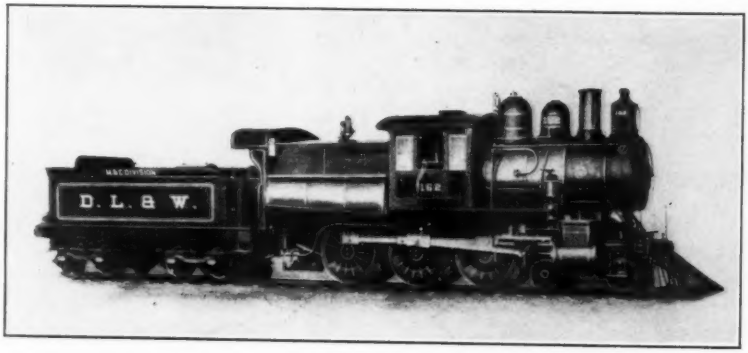
The "Capouse" #9. R. K. & G.—1851. One of Three Tenwheelers Included in First Order for Locomotives.



The "Moses Taylor" #67. Danforth, Cooke & Co. Typical Tenwheeler Showing Inclined Cylinders and Slabsides.



The "Investigator" #58. Danforth, Cooke & Co. 1857. The First Successful Hard Coal Burner.



D. L. & W. (M. & E. Div.) #162. Later #691. Cooke, 1892.

Brown, by re-setting the safety valves on the latter engine, reduced her boiler pressure about 20 lbs., ostensibly in the interest of safety, but really to reduce her performance records below those of No. 15.

The other, of this lot of seven similar ten-wheelers, was No. 247, built at the Kingston, Pa. shops, in 1894, by Master Mechanic Charles Graham, Jr. As a group, these engines marked the first step in the development of larger locomotives on the Lackawanna. In designing the No. 247, the master mechanic proposed a 5000 gallon tender. This suggestion was turned down by General Supt. "Bill" Hallstead on the grounds that a tender of such size would be ridiculous. However, the engine was equipped with engine truck brakes, and was the second D. L. & W. engine so equipped, the first having been No. 246, an eight-wheeler built at Kingston in 1893.

In 1913 and 1914, the 695, 697 and 699 (old Nos. 247, 7 and 17) were rebuilt at Scranton Shops, and given new boilers, cabs, domes, sandboxes, etc., similar to the 900 class, producing a ten-wheeler of extremely graceful lines. The engines were used then in milk and passenger service out of Hoboken until scrapped about 1926.

In 1900, seven large wide firebox 4-6-0's, Nos. 1001 to 1007, were delivered by the Brooks Locomotive Works, and were very similar to some received by the Central R. R. of New Jersey at the same time. It was intended to use them in Main Line express service and they were a radical change in both design and size from any used heretofore. Their performance, however, fell so far below expectations, that they were shortly relegated to milk train service, where they remained for many years. In an effort to make them "right", the extension piston rods were removed, hoping that the increased working area of the piston head so obtained would make them pull more or go faster. The engines had been equipped with piston valve cylinders. On several, these were replaced with slide valves, the experts claiming that there was too much dead (inactive) steam in the steam passages. All to no avail. Of this class, No. 1007 probably made a record for continuously handling one run longer than any engine on the road, before or since, being on milk trains Nos. 45 and 46, west of Scranton, from 1901 until 1919.

Engine No. 1002 was fitted with Young's Rotary valves and Walschaert's Valve gear about 1907. This was removed in 1909, and in 1912, Pilliod Valve gear was installed. Several of these socalled "Brooks Hogs" were originally equipped with arc type electric headlights. When heavier power was needed for the milk service, these engines were placed in suburban service at Hoboken, and while there, were given new piston valve cylinders, superheaters and Walschaert's valve gear.

The Brooks ten-wheelers had proved so unsatisfactory that the service for which they were intended was once more handled by eight-wheelers, and continued to be until 1905, when the company was compelled to supplant the American type and designed a new culm burner ten-wheeler, getting five, Nos. 1008 to 1012, from Schenectady.

These were followed by Nos. 1013 to 1016, from Rogers in 1906. The following year the design was changed to include piston valves and Walschaert Valve gear and engines Nos. 1017 to 1023 were received

from Rogers, also Nos. 1050 to 1052, of the same design, but with 73" drivers for service on the Buffalo Division.

Engines 1024 to 1031 and 1032 to 1036 were built by Schenectady in 1908 and 1910. This concluded the ten-wheel class on the Lackawanna, for 1912 witnessed the introduction of the Pacific type, which, in due course, replaced the ten wheelers.

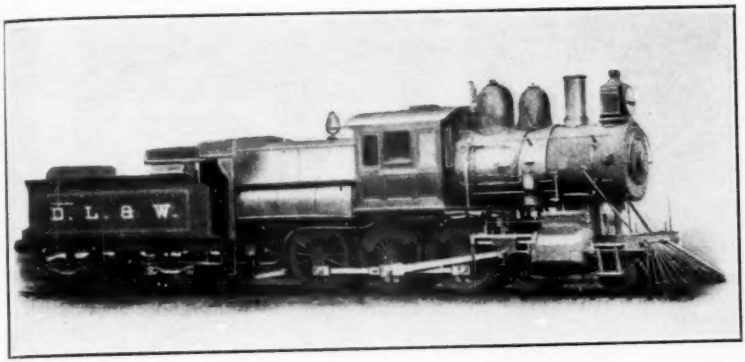
The 1000 classes were gradually relegated to Hoboken suburban traffic. All were equipped with superheaters and outside valve gear with piston valves. As a class, these engines Nos. 1008 to 1052 were considered satisfactory and were among the heaviest and most powerful engines of their type. They were also capable of considerable speed, No. 1025 having an unofficial record of 90 miles per hour on the Buffalo Division.

The passing of the ten-wheeler marked the adoption of the trailer truck, which had not been used on this road. It also witnessed the passing of the center cab engine, for with the construction of the wide firebox Pacifics, the cab was placed over and behind the firebox instead of ahead of it.

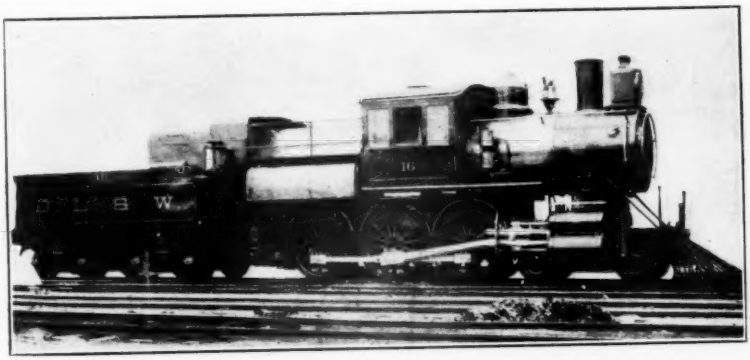
The ten-wheeler was standard for freight and passenger traffic fully as long as the eight-wheeler, equally as satisfactory in performance and more powerful, and a type whose fullest possibilities were never developed.

TEN WHEEL LOCOMOTIVES PLACED IN SERVICE, 1851-1899.
Including all six-wheel connected engines changed to ten-wheelers.

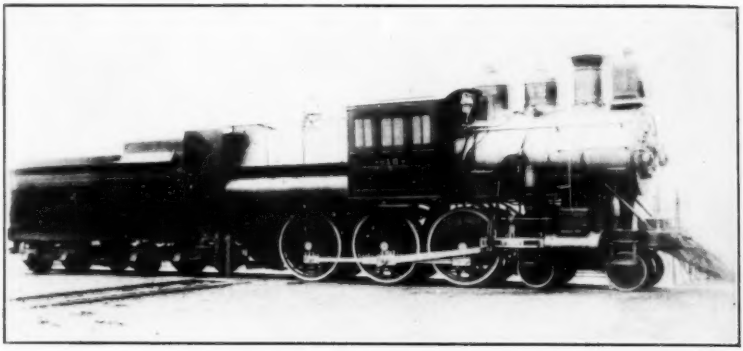
Road Nos.	Name	Bldr.	Year	Remarks	Ren'd 1899
4–9	Capouse	RK&G	1851	Disposition unknown	
	Lackawanna	RK&G	1851	Sold B&NYC 1853	
6	Tunkhannock	RK&G	1851	Sold B&NYC 1851	
7–10–89	Keystone	S'burne	1852		381
8–9–6–60	Niagara	RK&G	1852		408
9–8–66	Ontario	RK&G	1852		224
10	Genesee	RK&G	1852	to Cayuga Div. 7, 1870	390
11–5–37	Buffalo	RK&G	1852		369
12	Wyalusing	RK&G	1853	to Cayuga Div. 7, 1855 ret'd 1870, numbered 44	403
13	Pocono	DC&Co	1853	to Cayuga Div. 6, 1855	
14–11–94	Anthracite	DC&Co	1854		241
16–13	Lackawanna	DC&Co	1854	scrapped 1874	
17–15	Susquehanna	DC&Co	1854	scrapped 1876	
18–14–127	Tobyhanna	NJLW	1854		249
23–20–17	Lehigh	NJLW	1855		238
25–23	Kittatinny	DC&Co	1855	scrapped 1873-4	
27–24	Delaware	DC&Co	1856		239
28–25	New York	NJLW	1856	scrapped 1876	
29–26	Analomink	RK&G	1856	probably to 2-6-0. To Buffalo Div. 117, 1890	393
30–29	Aquanshicola	RK&G	1856	sold 1899	
31–27	Drake Mills	NJLW	1856	renamed Mehoopany	409
32–38	Pennsylvania	NJLW	1856	to Buff. Div. 116, 1890	
32	Drake Mills	DC&Co	1862		232
33–30	Meenesink	RK&G	1856	scrapped	
36–33	Pohatcong	RK&G	1856	scrapped 1876-8	
38	John Brisbin	Dickson	1863	renamed Oakland	370
30–46	Oregon	RK&G	1856	renamed General Grant. Wreck '99	



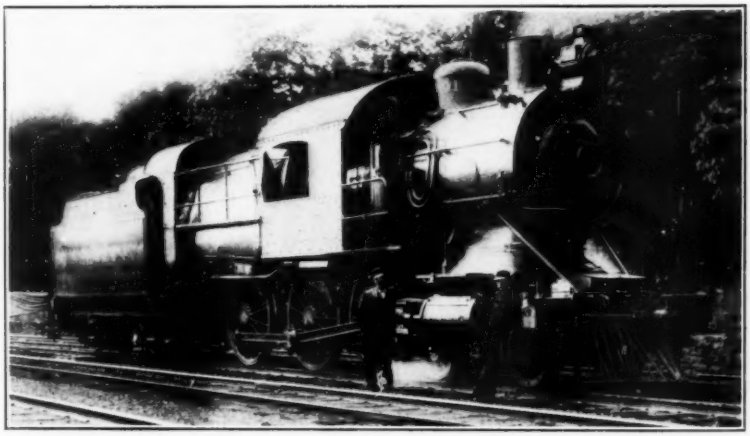
D. L. & W. #17, Later #699. Cooke Cross-Compound 1893.



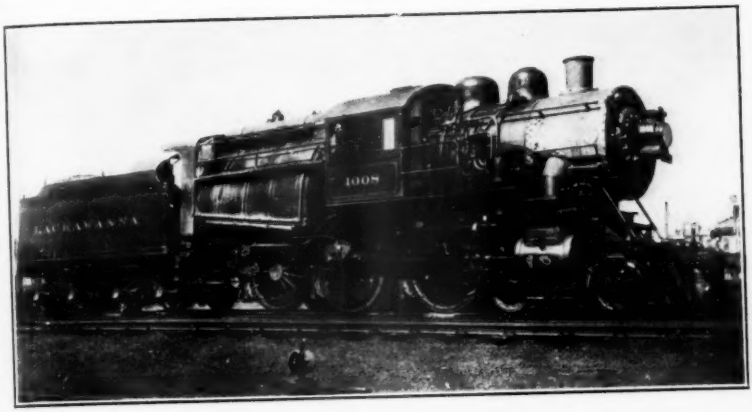
D. L. & W. #16, Later #693. Baldwin Vauclain Compound, 1892.



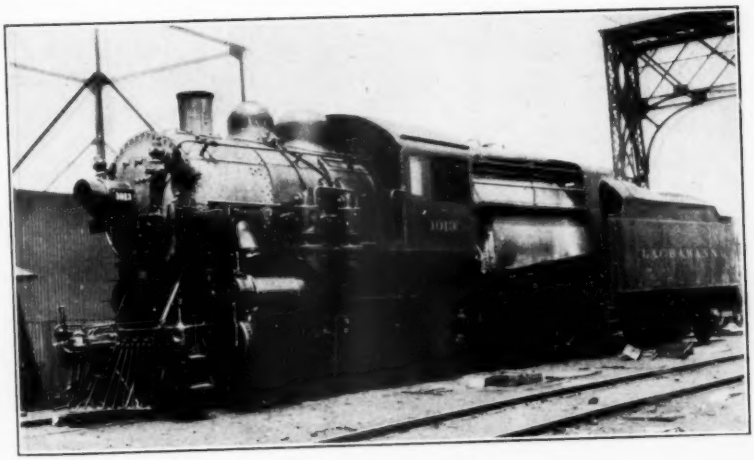
D. L. & W. #15. Scranton Shops. 1893.



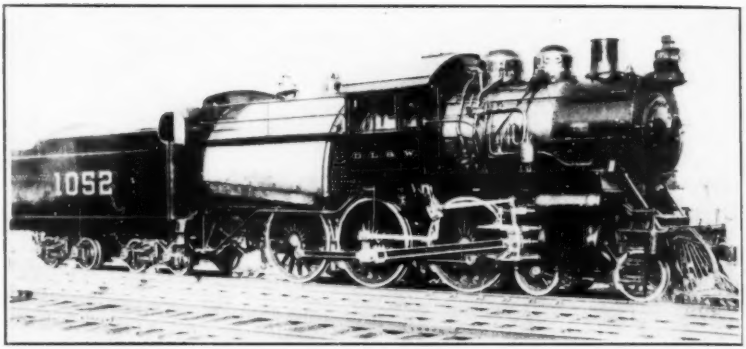
D. L. & W. #1001. Brooks. 1900.



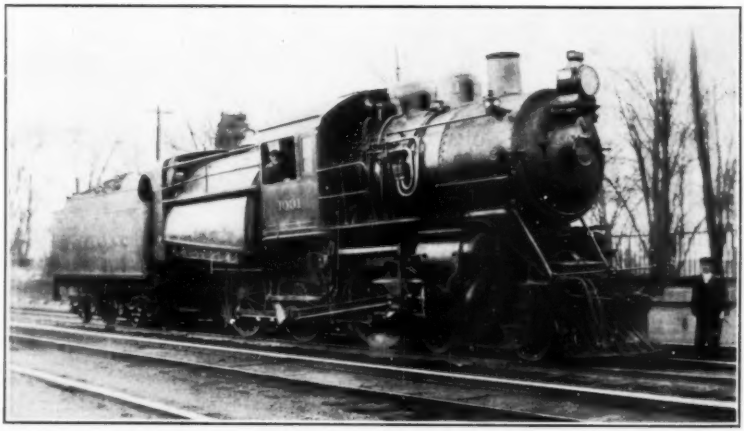
D. L. & W. #1008. Schenectady. 1905.



D. L. & W. #1013 as Rebuilt.



D. L. & W. #1052. Rogers, 1907.



D. L. & W. #1031. Schenectady, 1908.

40–37	California	NJLW	1856	to Buff. Div. 118, 1890	
42	George Bulkley	DC&Co	1862		261
43–40	Meshoppen	RK&G	1856	scrapped 1876	
43	Black Hawk	DC&Co	1862	renamed Ira Tripp	206
44–41	Phelps	NJLW	1856	renamed Sam Sloan?	
44	Wyalusing	RK&G	1853	ret'd from Cayuga Div. 1870	403
46	Chas. Marshall	Dickson	1863		219
47–45	Choconut	RK&G	1856	to 2-6-0. To L&B 231, 1898	257
52–50	Pequest	RK&G	1856	scrapped 1876	
55–53	Roaring Brook	RK&G	1856	scrapped 1879	
56	James Brown	DC&Co	1860		268
58	Investigator	DC&Co	1857		391
59	Decision	DC&Co	1857		169
61	Musconetcong	RK&G	1857	to Cayuga Div. 6, 1870 ret'd Main Line 26, 1898	211
62	Shesequin	RK&G	1857	scrapped 1876	
63	Monockanock	DC&Co	1857		258
64	C. R. Roberts	DC&Co	1857		373
65	W. S. Wetmore	DC&Co	1857		214
67	Moses Taylor	DC&Co	1860	renamed Gen'l Sherman	234
68	John E. Williams	DC&Co	1860		245
69	John I. Blair	DC&Co	1860		246
70	John J. Phelps	DC&Co	1860	renamed Gen'l Sheridan	203
71	Geo. N. Miller	DC&Co	1860		374
73	W. E. Dodge	DC&Co	1861		375
74	Henry Young	Dickson	1863		225
75	Sam Sloan	Dickson	1864	renamed Union	376
76	S. B. Chittenden	Dickson	1864		204
77	R. R. Graves	Dickson	1864		215
78	Chas. Danforth	DC&Co	1865		404
79	J. J. Albright	Dickson	1865		235
80	D. S. Dickinson	Dickson	1865		377
81	Lowell Holbrook	DC&Co	1865		378
82	Watts Cooke	DC&Co	1865		226
83	Percy R. Pyne	DC&Co	1865		379
84	George Biss	DC&Co	1865		205
85	A. Lincoln	DC&Co	1865	renamed A. L. Odell, 1865	365
86	James Archibald	Dickson	1865		380
90	Ed. Minturn	DC&Co	1866	to Buff. Div. 119, 1890	
91	J. H. Scranton	DC&Co	1866		382
92	Gov. Curtin	DC&Co	1866		383
93	Gov. Geary	DC&Co	1866		216
94	Gov. Packer	DC&Co	1866	to Buff. Div. 114, 1890	354
95	Gen. Kearney	Dickson	1867		384
96	Gen. Meade	Dickson	1867		385
97	Gen. Burnside	Dickson	1867		217
102	W. Dawson	Scranton	1869	renamed New York, 1876	350
103	Isaac Bell	DC&Co	1868		386
104	J. J. Astor	DC&Co	1869		387
105	G. F. Tolman	DC&Co	1869	sold	
106	M. H. Grinnell	DC&Co	1869	to Buff. Div. 120, 1890	363
107	P. H. Vandervoort	DC&Co	1869		351
108	R. S. Hone	DC&Co	1869		352
110	Denning Duer	DC&Co	1870		229
111	W. F. Hallstead	DC&Co	1870	renamed Susquehanna	267
112	G. W. B. Cushing	DC&Co	1870		357
113	W. R. Storrs	DC&Co	1870		272
114	Oswego	DC&Co	1870		353
115	Binghamton	DC&Co	1870		356

All of the foregoing that were in service December 31, 1886 had cylinders 18″x24″ and driving wheel centers 51″ dia., except #59 with 45″ dia.

TEN WHEELERS OF 1890-1899.

7		Scranton	1898	20″x26″ 69″ Dia. Dri.	697
15		Scranton	1893	20″x24″ 63″ Dia. Dri.	692
16		Baldwin	1892	20″x24″ 63″ Dia. Dri.	693
17		Cooke	1893	21″x26″ 63″ Dia. Dri.	699
247		Kingston	1894	20″x24″ 69″ Dia. Dri.	695

LACKAWANNA & BLOOMSBURG RAILROAD 10-WHEELERS.

11–215	John I. Blair	Baldwin	1862	18½″x22″ 48″	415
13–216	Major McNeil	Baldwin	1863	18″x22″ 48″ scrap 1898	
16–213	Erie	Dickson	1863	17″x22″ 57″	121
17–217	Monitor	Baldwin	1863	18½″x22″ 48″ scrap 1888	
19–218	Kingston	Baldwin	1864	18½x22″ 48″	416
20–214	Jas. Archbald	Dickson	1865	17″x22″ 57″	120

MORRIS & ESSEX DIVISION 10-WHEELERS.

59	Denville	Baldwin	1868	18″x24″ 49″ sold 1899	
60	Troy	Baldwin	1868	18″x24″ 49″	395
61	Caldwell	Baldwin	1868	18″x24″ 49″ scrap 1898	
161		Cooke	1893	20″x24″ 63″	690
162		Cooke	1893	20″x24″ 63″	691

Acknowledgment is made to many friends who furnished information used herein, and especially to Thomas T. Taber, whose indefatigable labor has unearthed photographs and data pertaining to Lackawanna Locomotives, that otherwise would never have been recovered.

The Wiscasset, Waterville & Farmington Railway Company

By H. T. Crittenden

THE WISCASSET & QUEBEC RAILROAD.

IF WE should consider the age of the Wiscasset, Waterville & Farmington Railway Company as certain other organizations consider the age of theirs, we can safely say the little road was the first narrow gauge common carrier in this country for it dated back to 1854. On April 15th of that year the Board of Railroad Commissioners of the State of Maine approved the charter of the Kennebec & Wiscasset Railroad Company. This company desired to build a standard gauge railroad from Wiscasset, Maine, where it would connect with the Knox & Lincoln, up the valley of the Sheepscott river through the villages of Sheepscott Bridge, Head of Tide, King's Mills, to Turner's Corner where it would swing northwest through the National Military Asylum, now known as Togus, to Augusta. A branch was to be built from Turner's Corner to Cooper's Mills and a cut-off laid between King's Mills and the Asylum. But, like so many other railroad companies during that time, the organization died without a spade of dirt being turned on account of lack of funds. Only enough work was done to keep the charter alive in the hopes that eventually something could be done and the road brought back to life.

As Portland prospered from the freight brought down from Canada over the Grand Trunk, business men in and around Wiscasset began asking themselves why they couldn't get some of it, particularly the grain traffic, for the harbor at Wiscasset was much better than that at Portland. The main trouble was they had no rail connection with the Provinces, either direct or indirect. Then someone thought of the inactive Kennebec & Wiscasset. A new company known as the Wiscasset & Quebec Railroad Company was speedily organized, purchased the charter, rights, and franchises of the K. & W., and applied to the legislature for permission to change the name on the charter and to make an extension to the originally chartered line. Permission was granted on February 14th, 1873 and again the railroad settled down for an extended vacation on account of lack of funds.

Early in 1894, the revised charter was dusted off and another company proceeded to make plans for a railroad between Wiscasset and Canada. This company had an authorized capital stock of $500,000, planned to build to Burnham as the first step, and then extend its line to a connection with the Bangor & Aroostook and the Canadian Pacific Railroads. The stockholders met on October 17th, 1894 relative to financing the construction and decided to mortgage the road to the Waterville Trust & Safe Deposit Company of Waterville, Maine, for the sum of $300,000. On the seventh of the following month the directors met and passed upon the recommendation of the stockholders but found that the trust company was unwilling to lend more than $100,000 on the proposed road until at least some of the line was in operation. However,

as immediate funds were badly needed, eight days later the necessary papers were drawn up and the company empowered to issue first mortgage 5% gold twenty-year bonds to the total amount of $100,000. Of the authorized amount $81,800 was immediately issued.

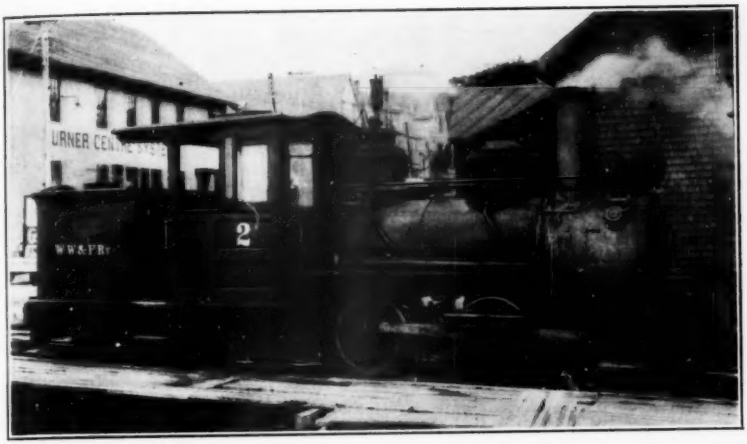
The directors of the company were Richard T. Runlett, Harry Ingalls, W. D. Patterson, G. H. Crosby, Llewellyn Libby, A. M. Card, A. R. G. Smith, F. C. Brainerd, and S. E. Hopkins. The officials were R. T. Runlett, president and general manager, and W. D. Patterson, secretary and treasurer. Owing to the fact the organization was still in its infancy no other officials were appointed.

While the board was thrashing out the financial problem, construction of the line was being carried forward. The fact that the two foot gauge was extremely popular in Maine at that time, owing to the low cost of construction and maintainance and to the unusual success of the Sandy River R. R., caused the company to settle on that gauge for their road. However, it was suggested that if conditions should merit it, the gauge be made standard as the original organizers of the road intended so that it would be possible to interchange cars with connecting lines.

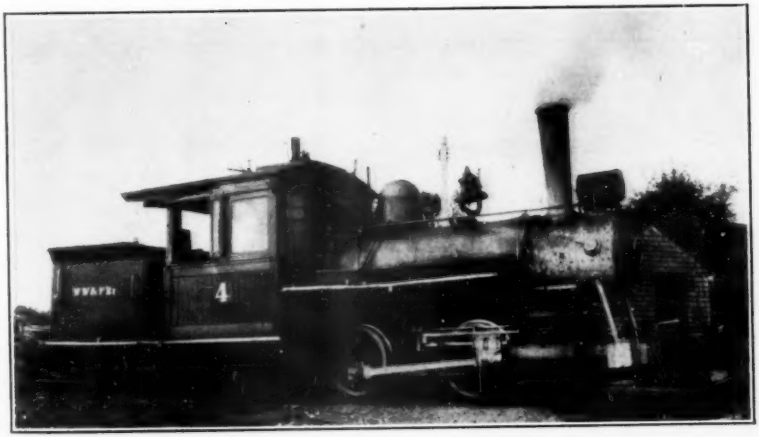
With this suggestion in mind a standard gauge road-bed was pushed steadily forward from Wiscasset towards Albion, about 44 miles to the north. It was well bedded with gravel before the ties were laid and finally 35 pound steel was spiked down to the required gauge. On February 25th, 1895 the section from Wiscasset to Week's Mills, about 28 miles, was approved and opened for operation but a speed restriction of ten miles an hour was imposed until the track had settled in the spring. On July 22nd the track between Palermo and China Station was completed. Two days later trains began running into Palermo, and on September 24th the service was extended to China Station. The final section between China Station and Albion was completed and approved on October 8th but the service was not extended to that point until November 4th. Construction stopped at Albion for the time being while the company made plans for financing further construction.

Simultaneously with the construction of the railroad, docks were being built at Wiscasset which would accommodate ocean-going vessels. Everything possible was done to facilitate the handling of the expected shipments of grain down from Canada.

For motive power the company went to the Sandy River R. R. and purchased their No. 3, an 0-4-4 diamond stack Forney built by the H. K. Porter Company in 1883. This engine was shipped to Wiscasset and went to work pulling construction trains as W. & Q. No. 1. A new engine was ordered from the Portland Company, an 0-4-4 Forney, and upon arrival went into service as No. 2. A third engine was purchased before 1900 from the Portland Company, practically a duplicate of No. 2, and ran as No. 3. Besides the engines the company brought in two straight passenger cars, a composite type passenger car, a baggage and express car, eleven box cars, twenty flats, a caboose, and nine road and service cars. But most important of all the company accumulated a deficit from the first year of operations of $4,971.

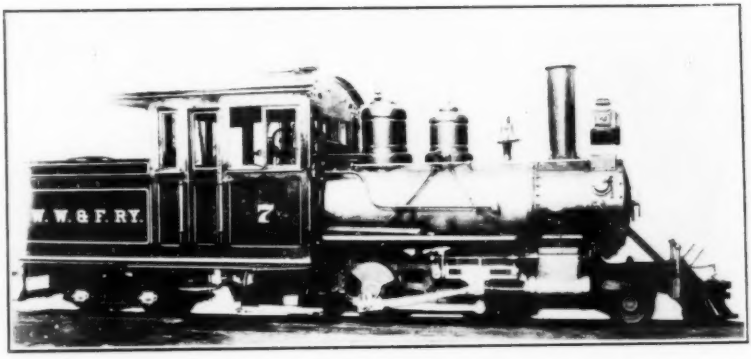


W. W. & F. #2. Portland #626—1894.



W. W. & F. #4—Porter, 1902.

W. W. & F. #6. Baldwin, 1907.



W. W. & F. #7. Baldwin, 1907.

To pay for the equipment used to construct the road the company issued short time 6% equipment trust notes to the amount of $13,178. The other equipment was not paid for but the cost was carried as a floating debt.

The matter of financing continued construction was brought up before the board early in the summer of '96. As construction had been started and trains were operating regularly as far north as Albion the financial backers were willing to underwrite any reasonable amount. On the strength of such an understanding a new first mortgage was authorized on the first of August. This mortgage covered everything owned by the company, was for $600,000, drew interest at 5%, and was due in twenty years. To retire the original first mortgage $83,400 was immediately issued and turned over to the company at Waterville.

Now that ready cash was at hand the company turned its attention to extending its line on north. During the spring of '97 the track work progressed steadily and by August the grading gangs had reached the Belfast Branch of the Maine Central but there they ran into trouble. It was the intention of the company to cross the M. C. tracks about three-quarters of a mile southeast of the river bridge, pass through the eastern part of Burnham, and finally connect with the Sebasticook & Moosehead Railroad at Pittsfield. For some reason the M. C. refused the narrow gauge permission to cross their line although legally such a crossing could be made if the diamond could be laid without interrupting service over the M. C. but that road made it impossible by keeping an engine running constantly between Burnhan and Unity. Finally the officials went before the railroad commission to try and force a crossing. That body met on October 6th, 1897 and listened to both parties argue their case.

It seems that the Maine Central's main argument was that a grade crossing would be dangerous. One is naturally led to believe that the M. C. desired to keep the narrow gauge out of the territory around and north of Burnham, a section which they considered as belonging strictly to them. The W. & Q. claimed that any type other than a grade crossing would be out of the question owing to the levelness of the section in the vicinity of the proposed crossing. After deliberating for a short while the commission refused permission to cross at grade as a safety measure but an overhead bridge west of the desired crossing was permitted. As a temporary measure to allow the construction of the bridge and not to hinder construction of the road or operation of the trains, a temporary grade crossing was approved under the condition it would be taken up by July 1st, 1898. The company did not build the bridge nor did it put in the temporary crossing but contented themselves by dropping back to Albion and operating only to that point. However, the steel was not removed from the Burnham extension, simply abandoned.

During the time the legal battle was being waged the company was reaching out in a westerly direction. They organized two dummy companies, the Franklin, Somerset & Kennebec Railway Company and the Waterville & Wiscasset Railroad Company. Both companies were chartered in 1897. The officials of the W. & Q. were also officials of the two companies.

The F. S. & K. was chartered to build a line of railroad connecting with the Sandy River R. R. at Farmington, through that town, through the towns of New Sharon, Mercer, Rome, Belgrade, Smithfield, Oakland, and Waterville. The entire grade was built, several miles of track laid beginning outside Farmington and extending towards New Sharon. No equipment was purchased. This much took up to the latter part of 1900.

As a connection with the Sandy River was desired and permission from the Maine Central to cross their tracks necessary to make the connection, the company approached the M. C. regarding the proposed move. The answer was a very emphatic refusal and the Sandy River terminal being located on M. C. property the company realized that their scheme was doomed. However as a final effort to force a connection the railroad commission was appealed to.

The Waterville & Wiscasset was to connect with the F. S. & K. at Waterville, cross the Kennebec river and build on down to Weeks Mills, connecting there with the W. & Q. Work progressed more slowly on this road for as the F. S. & K. ran into trouble, work was slowed down until some definite decisions could be reached. By the latter part of May, 1899, the survey had been completed and work was started on the piers for the bridge into Waterville. On June 7th of that year permission was granted to cross the M. C. at Winslow on a girder bridge built to an angle of about 82 degrees with the M. C. tracks. The W. & W. never got beyond the survey stage and as conditions became worse for the F. S. & K. work on the piers was stopped, leaving one completed and one about half done.

According to the official reports of 1900 the equipment owned by the company consisted of three engines, all fitted with Eames vacuum brakes, two passenger cars, a combination, a baggage car, sixteen box cars, fourteen flats, four coal cars, one caboose, and fourteen road cars. All of the passenger equipment was fitted with Miller safety platforms and couplers. Of the total fifty-three cars in service only ten were owned outright by the company, the others were "leased". In other words the builders probably retained the title to them and the company made monthly payments which was charged off against the amount owed.

There was no doubt in the minds of the backers that their dream of a direct rail route between Wiscasset and Canada had come to a rather abrupt end and several of them withdrew their support. The prolonged litigation had pretty well depleted the treasury so when demands were made for payment of current expenses, and these demands pushed, there was nothing to do but take bankruptcy. Papers to that effect were filed on July 1st, 1900 and the court appointed receivers to conduct the business of the company as they saw fit.

On August 25th, 1900 the receivers took the road over and continued operating trains to Albion but no further. The Burnham extension was left as it was. No work at all was done on the W. & W. while on the F. S. & K. it slowed nearly to a stop, only enough being done to say that construction had not actually stopped.

For eleven months the road was operated by the receivers without any marked degree of success. They just about made ends meet and if the Wiscasset, Waterville & Farmington Railroad Company had not purchased it on July 1st, 1901, the chances are it would have died a natural death within the year.

WISCASSET, WATERVILLE & FARMINGTON RAILROAD COMPANY.

On February 5th, 1901 the Wiscasset, Waterville & Farmington Railroad Company was incorporated and on March 29th of the same year its organization was completed. The company had an authorized capital stock of $1,000,000 and was empowered to issue bonds to a like amount. The charter gave the company the right to purchase the franchises, rights, and property of the Wiscasset & Quebec Railroad Company, the Franklin, Somerset & Kennebec Railway Company, and the Waterville & Wiscasset Railroad Company. The officials of the newly organized company were Leonard Atwood, president; J. G. Gill, treasurer; G. P. Farley, general manager.

With the organization completed a meeting was called on July 1st, 1901 and an arrangement made with the representatives of the W. & Q. whereby that company agreed to dispose of all its holdings, including the F. S. & K. and the W. & W., for a certain amount in bonds of the railroad company. Therefore the issuance of the total amount of first mortgage bonds allowed under the charter was authorized, $1,000,000, consisting of 5% thirty-year gold coupon bonds payable at the Real Estate Trust Company of Philadelphia, Pa. Naturally the amount actually issued to discharge the debt did not nearly approach the amount authorized nor was the total amount issued at the time.

Other than a few miles of track under construction, several uncompleted bridges and three or four completed ones belonging to the F. S. & K., the W. & Q. was the only company actually owning and operating any mileage of track. From this company the new organization obtained an excellent line of track between Wiscasset and Albion besides about eleven and a half miles of unused track laid with sixty to seventy-two pound steel extending north from Albion towards Burnham. The equipment as turned over to the W. W. & F. consisted of three engines, two first class passenger cars, one smoking and excursion car, one baggage, mail, and express car, sixteen box cars, sixteen flats, a caboose, a flanger, a snow plow, seven hand cars, four push cars, and four rubble cars.

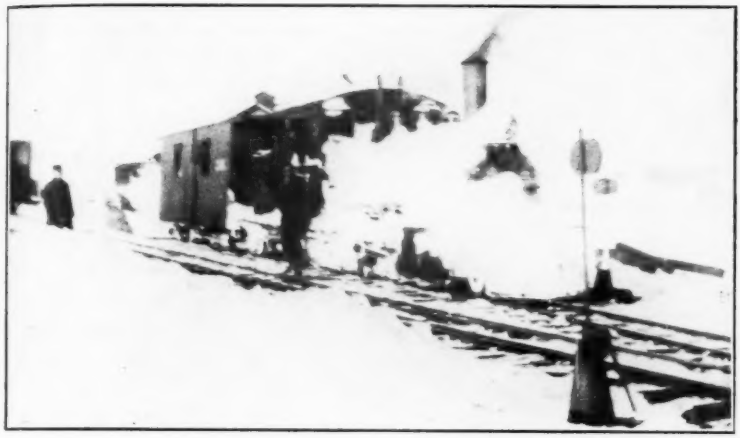
Work on the F. S. & K. was practically brought to a stop until a decision could be reached concerning the desired connection with the Sandy River at Farmington although permission was asked and received to pass under the Maine Central at Oakland and under the Somerset Railroad. Finally on August 26th, 1901 the awaited decision was made. The commission washed their hands of the affair on the grounds that the M. C. had a clear title to all the land to be crossed by the F. S. & K. and the S. R. occupied the premises through the courtesy of the standard gauge. If it refused to allow a connection between the two narrow

gauges on their property then, so far as the commission was concerned, that was the end of the matter. To give the company a slight gleam of hope the commission suggested that if a connection was desired by the S. R. they build an extension south from the station for about a quarter of a mile which would clear the M. C. holdings and then the F. S. & K could make a connection. The S. R. was not interested. As late as September 1901 the company was corresponding with the H. K. Porter Company concerning an 0-4-4 Forney for the road but the entire project was finally abandoned, the track between Farmington and New Sharon pulled up and the steel bridges removed.

On the other hand the company pushed their plans for construction of the former W. & W. between Winslow and Weeks Mills. The work was turned over to the Franklin Construction Company. Judging by the records of the two companies it appears that the construction company was closely connected with, possibly a subsidiary of, the railroad company. Such an arrangement would naturally have its advantages.

In November 1901 construction was commenced. The construction company purchased the track from Albion to the M. C. near Burnham, took it up and used the steel, spikes, frogs, and such track material as could be used in laying the new line. To facilitate the grading, bob cars were purchased from the Phillips & Rangley. But first, when they went up to remove the track, as per the contract with the railroad company, they found an attachment on the steel for $1,200 which had to be paid before the steel could be moved. This was in August, 1901. A year later, August 1902, when the line was completed and the bill for the construction tendered it was found the railroad company had scrupulously kept a record of all matter which they thought it would be possible to make the construction company pay for. These items included daily hire for the engine used on the work train, half of the coal burned on the engine, two sheep killed by the work train, car hire, price of ties not removed from the Albion-Burnham line, and rails taken from Wiscasset. Naturally the construction company felt a bit put out and promptly took the case to court. The court appointed two referees, Phillip H. Stubbs for the railroad and H. G. Thompson, Jr. for the construction company. They finally sifted the matter down and passed in their report giving the Franklin Construction Company $3,378.19 in cash, $34,500 in bonds, par value, and $49,500 in stock, par value, of the railroad company. The original, or contracted, price of the extension was $140,000 in first mortgage, thirty-year 5%, gold bonds, and $125,000 worth of capital stock of the railroad. The bonds were to be secured by a first mortgage on the new construction as well as on the Albion-Wiscasset section. In fairness to the railroad it should be said that during the time the road was under construction the company advanced to the contractors $105,000 in bonds and $75,500 in stock.

Probably a word concerning those first mortgage bonds might not be amiss. The question might be asked why they were so acceptable in payment of debts owed by the company. It might have been for just this reason that certain clauses were written into the mortgage when the bonds were issued. The bonds were issued in denominations of $100,



W. W. & F. #7 Arriving at Wiscasset After a Trip From Albion in the Winter of 1929.

W. W. & F. Trestle and Shops at Wiscasset—August 1929

All That Remains of the Deep Water Docks, Wiscasset.

The End of the Last Trip!

$500, and $1000 with the privilege of registration, due on July 1st, 1931, but redeemable after July 1st, 1911 at $105 per $100. Apparently the prospects of eventually receiving an extra $50 for every $1000 taken in bonds as payment was a bit more than the contractors could resist. During those days of railroad expansion most any contractor would have jumped at the chance to construct a line under such an agreement.

It was the agreement that the contractor should equip the new line with one 25-ton engine, approximately six new box cars, six new flats, ten hopper type coal cars of about ten tons capacity, one caboose, one first class passenger car, one combination passenger, mail, and express car, and one set of railroad weighing scales. The contractor fulfilled his agreement in everything except the caboose and the scales. The railroad company promptly charged the two items against the construction company's account.

The engine turned over to the company under the terms of the contract was a single unit 0-4-4 Forney built by H. K. Porter Company and was received early in 1902. She carried the road number "4" and was a peculiar looking thing. Her cab extended to the rear of the tank, completely covering everything except the boiler. Coaling was done through movable shutters and water was taken by means of a funnel on the rear. The cab was designed by the construction company, probably upon suggestions from the railroad company, and although it was protested as impractical by the builder the engine was delivered with it built as desired. She went to work pulling passengers between Winslow and Wiscasset but it did not take long for the company to realize the impracticability of the design and the cab was removed, being replaced by a Portland type built in the Wiscasset shops.

Both of the pieces of passenger equipment were built by the American Car & Foundry Company at Wilmington, Delaware. The passenger car was of a standard design but the combination was of a special type design for the road. It was divided into three compartments, passenger, mail, and express, in the order named. A passageway was built down one side of the car connecting the express and passenger compartments making it necessary for the postal clerk to open two sets of doors to receive or deliver mail on that side of the car.

While the extension was under construction the W. W. & F. began making plans for its operation. The Porter people were approached relative to a Consolidation type freight engine to handle heavy trains over the line and probably to run through to Farmington if that section was ever built. Although the company favored the 2-8-0 design the builder suggested a little Mogul as being much easier on the track, capable of handling all reasonable loads, and costing much less. After the exchange of much correspondence and the drawing of preliminary plans the whole thing was dropped. The Consolidation as designed was a neat, well proportioned mill but would have been much too heavy for the road.

Still looking for power the company entered into negotiations with the New England Southern Timber & Land Company of Lynn, Mass. to buy a practically new Mogul owned by them. This engine had seen

only a few months of service on the timber company's railroad in North Carolina, the Laurel River & Hot Springs, and had been sent north and stored when that road closed down. The engine was delivered to Wiscasset C. O. D. and as the company did not have the required amount they were not allowed to unload her. She sat on a flat car at Wiscasset for several weeks while the company tried to make some arrangements to pay for her but the New England Southern eventually lost patience with the road and sold the engine to the Sandy River where she ran as No. 3. The engine finally became No. 16 of the Sandy River & Rangeley Lakes and ended her days on that road.

It could hardly be expected the road would show a profit for the year 1902 as the Winslow-Weeks Mills section was not approved and put in operation until the ninth of July. The deficit amounted to $2,727. The paid in capital stock, or probably we should say the outstanding capital stock, was $194,300, the outstanding bonds $637,300, and the cost of the entire road and equipment to date $804,130. Frederick C. Thayer was appointed vice president. During the year the general offices were moved from Wiscasset to Waterville, just across the river from Winslow where the company had built a machine shop as well as an engine house. It appears that it was the intention of the company to locate their main shops at Winslow provided the line was ever extended to Farmington. In fact, it seems that a great deal depended on that extension to Farmington and the complete failure of that part of the company's plans did as much as anything else to push the road to the wall.

With trains running into Winslow the company seriously considered the construction of two short extensions to act as feeders. One was to be from Coopers Mills through Powers to Togus, there to connect with the little Kennebec Central which ran into Randolph at the head of navigation on the Kennebec. The other was to leave the main line at Clarks, pass through Crosshill and terminate at Augusta. The only thing that could be said for this section was that it would connect the main line with the capital of the state. No means of financing this work could be found so the projects died almost before they were born.

In 1904 the regular passenger train made one round trip a day between Winslow and Wiscasset, down in the morning and back in the afternoon. The Albion branch also had only one train a day but between the time she arrived at Weeks Mills, she did not run on to Wiscasset, and the time she left for Albion in the afternoon, she made two round trips, three on Sunday, between Weeks Mills and Winslow. The section of track between Weeks Mills and Wiscasset was hardly more than a branch while the line up to Albion was frankly called a branch and operated as such. The track between Winslow and Weeks Mills was actually the main line and trains were operated over it to give frequent, if not fast, service into Winslow from the outlying towns and villages. Weeks Mills was the hub from which the trains radiated. There was only one train a day out of Wiscasset while the Mills had three northbound to Winslow, one to Albion, and one southbound to Wiscasset.

Even though the company had quite a bit of line in operation, 57.46 miles to be exact, not a year passed that did not end in a substantial deficit from operations. The lack of manufacturing enterprises along the line was mainly the cause of this perpetual deficit and although the farmers patronized the road as much as possible the little revenue realized from their patronage made hardly a dent in the cost of operations. The deficit for the year ending June 30th, 1905 amounted to $43,433, making a total deficit to date of $107,212. Of the deficit of $43,433 about $10,000 was an actual loss from the operation of trains while something over $33,000 represented interest due on the bonds. It is no wonder the bondholders began demanding at least a partial settlement of the overdue interest. The company was beginning to experience the evils of over-capitalization. Everything possible was done to check the increase in value of those red numerals on the left side of the sheet. All straight passenger jobs had been previously discontinued and mixed trains run in their place so the company began cutting elsewhere, a little here and a little there but still the red numerals increased in value.

During these trying times the officials of the company were G. P. Farley, president; A. M. Card, vice president; S. J. Sewall, superintendent; W. D. Patterson, clerk, treasurer, and auditor.

When no payment was made on the interest at the close of the fiscal year of 1905 and the officials admitted they saw no prospects of paying it in the near future, the bondholders requested the court to appoint receivers for the road. This was done and on October 7th, 1905 the railroad was placed in their hands for operation or sale, as they saw fit.

For over a year the road struggled along under the management of the receivers. Each monthly report had nothing to show but a deficit and the receivers gradually realized that they were powerless to put the company back on its feet. Such a realization left them no alternative so they posted notice the road was to be sold. On December 4th, 1906 the sale took place and the road was purchased by Carson C. Peck, the owner of a large group of chain stores throughout New England. Peck entered into an agreement with the receivers whereby they agreed to continue control until the first of the year. Promptly on January 1st, 1907 Peck took the road over and changed its name to the Wiscasset, Waterville & Farmington Railway.

WISCASSET, WATERVILLE & FARMINGTON RAILWAY COMPANY.

Peck's desire that the receivers continue control until the first of the year was to give him time to organize an operating company to take over the line. He was not foolish enough to go outside and bring in men totally unfamiliar with narrow gauge operation to run his line but obtained those who had worked around the W. W. & F. for some time. He kept the official family down to four men besides himself; N. L. Bassett, clerk; W. D. Patterson, treasurer; S. J. Sewall, general manager; and Llewellyn Libby who held no operating office but was simply a member of the board. Peck naturally retained the office of president for himself.

He capitalized his company to the amount of $300,000 consisting of two thousand shares of preferred stock and one thousand shares of common, each share having a par value of $100. To pay for the railroad one thousand shares of common and one thousand of preferred were issued. Presumably these shares were turned over to the Railroad Company but judging by subsequent events Peck retained the stock and paid the receivers the sale price of the road in cash out of his own funds which gave him control of the road with two-thirds of the stock. The other thousand shares of preferred stock was sold gradually, as the need arose, to raise cash until all of it was disposed of.

The equipment as turned over to the Railway Company consisted of four engines, a combination baggage, mail and express car, three first class passenger cars, a combination mail, express and passenger car the passenger section of which the former company designated as a smoking compartment, an open passenger car, twenty-six box cars, thirty-seven flats, a caboose, a flange digger, a plow, eleven hand cars, ten push cars, and one wrecked box car.

One of the first things done was to increase the number of engines owned. The four engines in service were badly in need of repair and the company realized that unless more power was immediately obtained and the work load on them lightened, they would be beyond repair. Two engines were ordered from Baldwin, one passenger and one freight, to be delivered as quickly as possible. While these were being built the company purchased Bridgton & Saco River No. 2, renumbered her "5", and put her to work. This engine was an 0-4-4 Forney type built by either Hinkley or Portland about 1882. The two engines ordered from Baldwin were numbered "6" and "7". Engine 6 was an outside frame Prairie type freight engine while 7 was a 2-4-4 Forney type passenger engine. This particular engine was the pride of the road and when she happened to be running late she is known to have frequently smoked her train through the woods at a mile a minute clip. The general impression that passenger service on the narrow gauges was slow and that fast running was impossible is very erroneous. The schedules were slow to allow the mixed trains time to drop and pick up cars but when time pressed no rust accumulated under the wheels.

After the arrival of the two engines from Baldwin the roster was divided into three classes. Engines 1, 2, 5, and 7 were classed as passenger engines, 4 and 6 were freight engines while 3 was listed as a shifter and put to work in the Wiscasset yards. She was considered too old and unreliable for road service, at least more so than the other two old W. & Q. engines.

Although the old Railroad Company records show they had two combination cars, one acquired from the W. & Q. and one from the Franklin Construction Company, they turned over to the new company only one. Possibly the open passenger car was a rebuilt combination. Anyway the directors realized that a second combination was badly needed so they purchased an old open street car and rebuilt her at the company shops into a combination, express, mail, and passenger car. They made a good job of it but when the car went to work on the road

it took only one glance to tell what she was originally. Even the high tension insulators were left in place on the monitor roof.

The passenger train schedule was altered slightly from that maintained by the former owners. All of the usual trips were made but an extra [illegible] was run between Wiscasset and Albion. On its return trip this [illegible]nected with the morning train from Albion at Weeks Mills returning from its first round trip to Winslow. This morning train from Albion was no longer a straight passenger job but a mixed train hauling several cars of milk.

Whaling seems to have been quite an industry in New England even as late as 1907 for the company rented out their dock as a whaling ship wharf. Even so, other than the money realized from rent the transaction apparently did not benefit the road to any great extent.

The following year, 1908, the company purchased ten new flats to take care of the increasing timber and pulpwood traffic. Even though the company was forced to shave its expenses pretty close it managed to operate at a fair profit. Peck was a very shrewd business man and although railroad operation was not his line he realized it and was content with things as they were as long as Sewall could show a profit from operations and pay a small dividend on the stock. Fortunately the company was not hampered by any mortgages on the equipment or road, an item which actually made the difference between success and failure.

It was found that the Bridgton & Saco River was in the market for a standard passenger car. The board, upon hearing of this, decided that two straight passenger cars were all they needed so sold the third to the B. & S. R. It was hoped that when passenger steamers began running out of Wiscasset passenger business would pick up, which it did, but not enough to crowd the trains. Fortunately the steamboat people rented the company dock and to better the property it was practically rebuilt in 1911 at the cost of $6000.

The freight equipment went through quite a change during the period of from 1907 to 1912. The transportation of lumber was naturally hard on the flats and two of the forty-seven owned in 1908 had to be scrapped. Ten of them were presumably rebuilt into box cars for they dropped from the roster and the number of box cars were increased by a like amount. All inclosed freight cars were listed as freight cars but actually four distinct types of cars were in use. The first two types were standard type box cars and rightfully should be classed as box cars, the first type having side doors five feet wide and the second having doors seven feet six inches wide. The third type was apparently designed for work on a passenger train, possibly to haul milk. They had the wide type side doors but also had a small eighteen-inch door at each end so that it was possible to pass through the train without climbing over the top of the cars. Some of these cars had four standard size windows in each side. The fourth type was built exactly like standard gauge refrigerator cars except there was no ice compartments. They were built to handle the potato traffic but the design was not to keep the cold in but out. It is claimed that some of the potato cars had stoves installed and that they were kept fired during extremely cold weather

while the car was in transit. The end door type would be particularly suited for this.

Freight consisted mainly of forest and farm products. Of the two, timber constituted by far the largest per cent of the tonnage. Grain led the farm products but was closely followed by potatoes, the amount of which had steadily increased and showed signs of eventually being second only to timber. Although the profits from operation were not large they were steady, that is, each year showed a profit of about the same amount. Up to June 30th, 1911 the accumulated profit was $16,081.23 while for 1912 it amounted to an additional $1,228.18. Improvements were made gradually for the directors steadily refused to go in debt. If the road couldn't pay for its own improvements then the road could do without them. The trestling at Wiscasset was practically rebuilt in 1912. A section at the north end a hundred and twenty-five feet long was filled in while another section starting five hundred feet from the highway bridge over the river and extending to the upper switch was also filled. The track at Whitefield was changed and raised from six to eight feet after which a stone retaining wall was built on the outside towards the river. The previous year the company handled a hundred thousand bushels of potatoes but in 1912 the amount increased to a hundred and eighty thousand. On the strength of this increase the company built a new potato house at Coopers Mills, the size of the yard at Wiscasset was nearly doubled, and ten new flats were purchased.

The lumber business increased to such a point that in 1913 the company felt justified in building a derrick car from one of the flats. This car was used for the transfer of heavy freight, the loading of timber and logs, and possibly as a sort of wrecking car to rerail cars. It did not stay in service very long. It was during this year that engine 5 had her crown sheet badly burned and as she was not particularly needed she was eventually scrapped, the boiler being patched up and placed in the shop to generate steam for the stationary engine.

Unfortunately just as the future of the road seemed assured Peck died, that was in 1913 or '14, and Sewall was left the job of handling both finances and operation. Peck's widow took over the interest and kept in touch with Sewall through her lawyer but luck, or whatever you want to call it, deserted the road and it wasn't long before there was a noticeable decrease in the profit from operations. To check the downward glide all train service into Winslow was discontinued while the rail from there down to North Vassalboro was pulled up. This steel came up in 1915 and went to replace the lighter rail on "The Mountain," a rather steep grade that had to be doubled frequently, and several other places below Weeks Mills. All passenger service over the North Vassalboro-Weeks Mills section was suspended while only about two miles west from the junction was used for freight. Sewall managed to get through the year with a profit of $6,015.52 but he did it at the expense of the road. All work on the track except that absolutely necessary was suspended with the result that the winter played havoc with it.

Just as soon as spring opened up and the frost got out of the ground the company started stripping the rest of the extension but when the

wreckers got down to South China they stirred up a bit of trouble for the road. A farmers' union owned a potato house there and they had a contract with the railroad to haul their potatoes down to Wiscasset. When the farmers saw that the stripping was not going to stop there they reminded the company of that contract and demanded satisfaction either by an adequate means of transportation or disposal of the potato house. After some delay, which the company could ill afford, the board agreed to purchase the house for $1,000 thereby cancelling the contract. The deal was concluded on June 21st and the removal of the line completed. The rails were sold for scrap and the proceeds distributed among the stockholders as extra dividends. While the extension was down the company was in mortal fear the inspectors from Washington would arrive and, seeing the condition of the extension, close the road down until the track was put back in condition or the scrapping completed. Fortunately when the inspectors did arrive everything was ready for them although the board was still a bit winded from their exertion.

Officially Peck's place on the board was never filled nor was a president appointed. Sewall, being the most practical railroad man of the group, was looked upon as a sort of president pro tempore.

Labor trouble hit the road that summer. The men left as they found better jobs elsewhere and almost any job was better than one on the road. As they left it was impossible to fill their places at the wages paid. The board admitted that the wages paid, in most cases, were so low that if the men didn't keep chickens, pigs, cows, and raise vegetables in small gardens it would have been impossible for them to exist on what they received from the railroad. In an attempt to hold the men all daily wages were increased ten cents a day on July 1st. This certainly wasn't much and in some cases the men left anyway but the board complained that this increase would cause the company to just about break even if the tonnage did not decrease. If it did, well, there would be a deficit.

With the Weeks Mills-Albion section again the main line, engine 7 continued to haul the straight passenger job which left Albion each morning for a round trip to Wiscasset. This job usually consisted of two cars of milk, the baggage car, and a coach. Sometimes a combination replaced the coach. A freight left Wiscasset each morning for a round trip to Albion. This train carried a combination car for local passenger work which was light for the morning traffic was to the south and the afternoon to the north.

The company started fitting out their equipment with automatic couplers in 1916 when two engines, two passenger cars, and six freight cars were so equipped. All three engines purchased in 1907 were fitted with automatic couplers but as one had been scrapped the 1916 installation gave the road only four engines so equipped. It was necessary to slot and drill the nuckles so as to enable them to be coupled to equipment fitted with the old link and pin draft gear. Possibly the change was "suggested" by the I. C. C. for the road certainly was not in a position financially to convert its equipment at that time.

The old saying that accidents on railroads run in triplets certainly applied to No. 6. One morning in 1927 a car of potatoes got on the

ground, about three miles south of Albion, and before the train could be stopped it turned over. This dragged the engine off and both car and engine rolled down the dump. Number 6 was pretty badly smashed, the car totally. The engine was rerailed, hauled to the Wiscasset shops and practically rebuilt. On her first trip out she blew her crown sheet and was returned to the roundhouse. This time she was stored but in 1931 the roundhouse burned and just about finished her as a useful piece of motive power. The same fire caught No. 7 and neither engine ever saw active service again.

There is no doubt that the road had its share of accidents but fortunately practically all of them were merely derailments in which no one was hurt. No material damage was ever done and except for the inconvenience of having the main line tied up for a few hours they caused no great amount of trouble. In March 1927 an engine and several cars of pulpwood jumped the track, went down the dump and started across the Sheepscot river. It was just after a hard freeze and the ice held the job up until a frantically working wrecking crew could drag it ashore. Not a single piece of equipment turned over and other than a broken rail and a little split pulpwood there was no damage done.

For ten years the company managed to keep the road running but each succeeding year saw conditions just a little worse. Finally the Peck interest let it be known that their interest in the road was for sale and the farmers along the line began to wonder how they were going to get their products down to Wiscasset if the road was pulled up. They got together, formed a sort of cooperative organization, and approached the company relative to purchasing the road. After much bargaining a price of $60,000 was agreed upon and in 1926 the road changed hands but not its name. The former owners took a deep breath and stepped out from under.

The new owners took a look at their little line, rolled up their sleeves, and went to railroading but it didn't take them long to realize that all they had done was to guarantee themselves a rail connection with Wiscasset. Engine 1, being the oldest engine, they scrapped and sold for junk, the money being used to improve the road, which, incidentally, was badly in need of it.

Motor cars and trucks gradually ate into the road's business until the company was at a loss what to do. Finally they decided to get someone to manage the road who had had experience along that line. The management decided on Mr. H. P. Crowell, former general manager of the Belfast & Moosehead Lake R. R. He accepted the position and went to work in 1929.

When Crowell took over the reins conditions were bad but it seemed to the owners that under the new general manager they went from bad to worse. They dismissed him early in 1930 and tried a little managing of their own. Their first act was to cut the service. The train that left Wiscasset each morning for Albion was taken off. The straight passenger job out of Albion was cut off and a combination run in its place. A careful check was kept on everything pertaining to the management of the line, the cost of transportation was kept down to rock

bottom, as was the cost of repairs and general upkeep, but in spite of every effort to the contrary the road sank deeper and deeper into debt.

Conditions finally reached the point where the creditors felt justified in requesting the appointment of receivers and on November 13th, 1930 S. J. Sewall and H. P. Crowell took over the line upon orders from the court. Under their management, or probably we should say under Sewall's management, conditions improved remarkably so that it was possible to pay off a part of the indebtedness.

At a meeting held in December Frank W. Winter came forward and managed to obtain the controlling interest in the company by purchasing the majority of the stock for a very small amount. Accordingly Winter was appointed president and the company continued operations under his leadership. The receivership was eventually discontinued.

Winter was a local capitalist who owned a large tract of standing timber up around Palermo. He was not a practical railroad man at all but a lumberman and was interested in moving his timber down to Wiscasset as cheaply as possible, not in the success of the railroad. At the time he gained control there was a small surplus held as a reserve in the treasury and by operating with a minimum number of men and spending only where necessary, the line managed to continue to show a profit from operations. The mail contract for $9,200 per year was a great help.

Incidentally we might state that both the Bridgton & Harrison and the Sandy River & Rangeley Lakes lost their mail contracts in 1918 which left the W. W. & F. the only twenty-four inch road with a railway post office in the country. This is not so important to us but was tremendously so to Winter.

In 1931 the roundhouse at Wiscasset burned and in so doing finished engines 6 and 7. This left only engines 2, 3, and 4 in service and these could hardly be called serviceable. The road had fallen to just about the status of a lumber line and Winter did not spend any large amount in upkeep. There being a great deal more freight equipment than was necessary to handle the traffic a novel but wasteful method of clearing the line after a wreck was devised. When a car got on the ground and showed signs of being troublesome to rerail, it was unloaded and toppled down the fill out of the way. Before the final crash there were quite a few cars reposing on their sides along the line and they acted as very effective markers for the bad places in the track.

Under the Winter management debts began to pile up for equipment and supplies, such items as could very well be done without, but Winter thought the road needed them and so had them sent in. Although the road did not legally owe for the items, the purchasing officer, if the road had one, not having ordered or signed for them, it was a moral debt. These debts piled up until the court again felt justified in appointing receivers and on December 31st, 1931 they took over the road.

For seven months they operated the line as best they could but at the end of that time they advertised the road for sale at auction. The sale took place on August 1st, 1932 and Malcolm Philbrick became the new owner, according to law. When everything had settled down it was

discovered that Winter still owned the road, having bought it through Philbrick who was his son-in-law. It must have been a rather unpleasant shock to the creditors to have their debts cancelled so neatly.

Service was continued as it was before the sale. Freight equipment was allowed to deteriorate until, about only twenty-five of the hundred-odd cars were in a condition to be allowed on the road. Engine 2 died a natural death and was stored in the far end of the coaling shed while 4 wheezed and groaned but continued to clatter up and down the line. Engine 3 was apparently the best of the lot so she was patched up at the expense of 2.

To obtain more motive power Winter went over to Randolph during the middle of January 1933 and purchased the entire superstructure of the Kennebec Central. The rail was pulled up and sold, the cars left in the Randolph yard but the engines were loaded on trailers and hauled by three large trucks to the Wiscasset shops. Vacuum brakes were installed on the drivers and the engines renumbered. K. C. 3 became 8 while 4 became 9. Engine 9 promptly replaced 4 and that engine shoved in back of 2. Owing to the condition of the wooden trestling, she was considered too heavy to be safe, weighing approximately twenty-eight tons against the eighteen tons of the Portlands. Engine 3 was still in the machine shop which was doing duty as engine house, machine shop, and car shed since the roundhouse fire. This building was originally the car shed. Engine 9 made only a very few trips before she joined 3 with a broken tender frame.

Just when Winter least expected them the inspectors from Augusta swooped down on him. They took one look at the station trestle and said it would have to be rebuilt immediately if the road was to keep running. The motive power also needed work on it to meet state and federal requirements. Winter immediately began a race against time to get his timber out before the expiration of the period of grace for he had no intention of paying out good money to put the road in condition to continue operations.

On the morning of June 15th, 1933 engine 8 was hauling the daily train down from Albion when just below Whitefield a rail snapped under her. The engine swung sharply to the right, nosed down the fill and headed for the Sheepscott river. The train consisted of a flat, a standard box car, a reefer, and the converted street car. The flat jammed up against the tank and stopped the train. The fireman jumped but the engineer stuck, mainly because there was no place to jump except into the river, and was not hurt. That was the last straw so far as operation of the road was concerned and the company closed down that day. They did not even bother to rerail the engine or move the cars but left them just as they were. The crash caught Winter with only about half of his timber out.

When it became apparent that the owner was not going to resume operations several offers were made to purchase the road. Each offer was refused. Finally Winter was asked to set a price for which the road could be purchased and after a time offered to sell for $75,000, about half again as much as the road was worth for the trestle at Wiscasset

would have to be rebuilt and most of the trestling between Head Tide and Albion was of doubtful stability.

As a reason for desiring such a price for the road the owner claimed he had a standing offer from a South American company of $75,000, provided the equipment was delivered without extra cost. To substantiate his claim he brought two large schooners to Wiscasset and tied them up to the company dock with the understanding they were to transport the equipment south.

Today the two ships still lay tied to the dock but they will certainly never sail the seas again as the weather has steadily been working on them and the tides run in and out of the hulls like a mill race.

When it became apparent that no agreement could be satisfactorily entered into relative to the sale of the road, the same parties offered to lease the road. This offer was also flatly refused. The road then entered into a period of stagnation until Fate should settle its account one way or the other.

In November 1934 the main line steel was attached by a large western paint concern for a long overdue bill. A wrecking firm in Gardiner was awarded the contract for taking up the rails and immediately went to work. The crew used a flat car pulled by a pair of horses to haul the steel to the nearest highway crossing from which it was sent by truck to Gardiner. Only the main line steel was removed, none of the sidings, frogs, or switches were touched. The track was moved about four feet east at the wreck below Whitefield so as to pass the equipment around the engine. All the equipment scattered over the line was hauled by the team to the nearest siding and left.

The track below Head Tide was not bothered but the stripping of the remainder of the line effectively rang down the curtain on the W. W. & F. It is rather pathetic to see a string of cars sitting on a short section of track twenty to forty miles from a railroad. They will probably sit for years as a memorial to those who once dreamed of a narrow gauge railroad from Tidewater Maine to the great grain section of Canada.

Locomotives of the New Haven R. R.

By Chas. E. Fisher

WE HAVE already listed the locomotives of the New York & New Haven; Hartford & New Haven and some of the smaller roads in the State of Connecticut in Bulletins 40 and 41. The next group of locomotives in the old series of numbers came from the

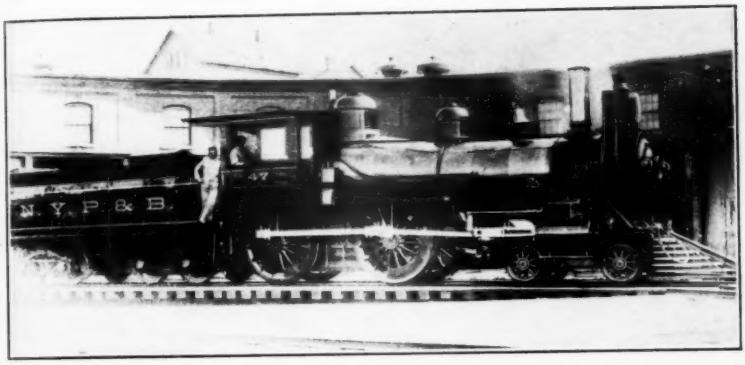
NEW YORK, PROVIDENCE & BOSTON R. R.

The New York, Providence & Boston R. R. was incorporated in the State of Rhode Island in 1832, and authorized to build a railroad from Providence to the Connecticut State line in Westerly, wholly within the State of Rhode Island. The New York & Stonington R. R., incorporated in the same year in the State of Connecticut, was authorized to build a railroad from Stonington to the eastern line of Connecticut on the Pawcatuck River. In 1833, the two companies were consolidated under the name—New York, Providence & Boston R. R. The road was opened for traffic on November 17, 1837 and thus the famous "Stonington Line", as it was called, commenced operations. One terminal was located in South Providence, near the present corner of Allens Ave. and Henderson St. There was a ferry across the river to India Point and here a connection was made with the Boston & Providence R. R. for Boston. When the first Union Station was opened in Providence, in 1848, the line through Auburn was built in order that the trains might enter the new station. On December 1, 1864, the New York, Providence & Boston R. R. acquired that portion of the New Haven, New London & Stonington R. R., between Stonington & New London, Ct. and thus the road gained entrance to New London. On December 12th, 1859, through train service, without change of cars was effected over the four roads between Boston and New York, the cars being transferred by ferry across the Thames and Connecticut Rivers. The bridge at New London was not open for traffic until Oct. 10, 1889. On May 1, 1888, the road leased the Providence & Worcester R. R., that busy little road running up to Blackstone Valley and on April 1, 1892, the New York, Providence & Boston R. R. was leased by the New York, New Haven & Hartford R. R. and deeded to them on Feb. 3, 1893.

Turning now to the locomotives of this road, the U. S. Report of 1838 lists six engines as being owned by this road:

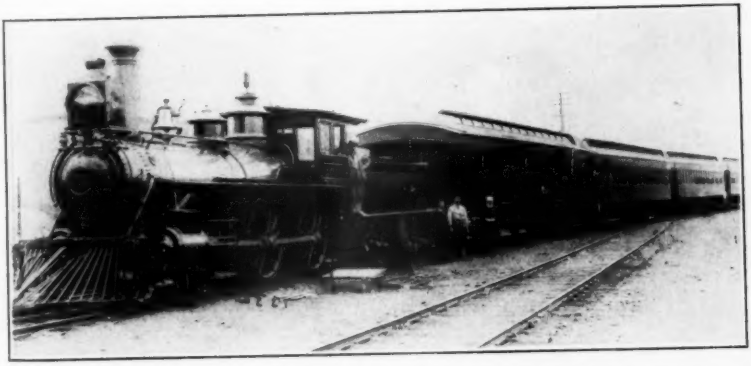
Stonington	Locks & Canal Co.	1836	12x18″	54″	10 tons
Rhode Island	Locks & Canal Co.	1836	12x18″	54″	10 tons
Apponaug	Locks & Canal Co.	1836	11x16″	60″	8½ tons
Greenwich	Locks & Canal Co.	1836	11x16″	60″	8½ tons
Little Rest	Locks & Canal Co.	1836	11x16″	60″	8½ tons
Pawcatuck	Locks & Canal Co.	1836	11x16″	60″	8½ tons

All of the above engines were of the 4-2-0 type and the "Little Rest", "Apponaug", "Pawcatuck" and "Stonington" were subse-



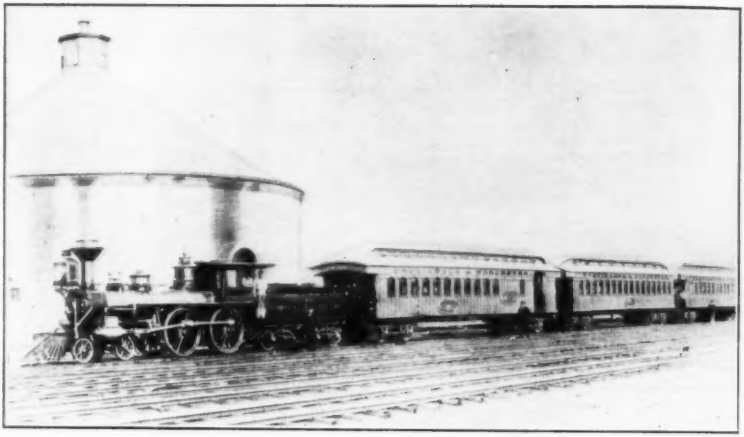
Courtesy of C. B. Burr.

N. Y. P. & B. #47—Manchester, 1890.

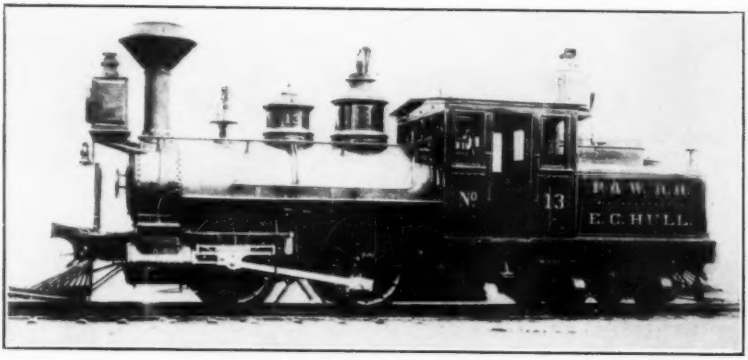


Courtesy of J. W. Merrill.

N. Y. P. & B. #101—Rhode Island, 1880.



Courtesy of Ry. & Loco. Historical Society.
P. & W. "Albion" #9—Mason, 1866.



Courtesy of J. W. Barnes.
P. & W. "E. C. Hull" #13—Rhode Island, 1883.

quently rebuilt in the Providence Shops to the 4-2-2 type. The "Pawcatuck" was renamed "Roger Williams", in honor of the founder of Providence. In 1844, the road purchased the "Reformer" Rogers K. & G. No. 54, 1844, 11½x22" 60".

In 1847, the road assigned numbers to their locomotives although the use of names was retained for many years. So far as we can learn none of the above locomotives ever carried a number. The numerical assignment was as follows:

1	Oregon C. Vanderbilt	Taunton L.W.# 7	12- 1-1847	4-4-0	16x20"	60"	Renamed
					Rebuilt		
		Taunton L.W.#	10-15-1860	4-4-0	15x20"	60"	Rebuilt
		Taunton L.W.#	4- 7-1866	4-4-0	Sc 1890		
301		Rhode Island 2851	1892	4-6-0	18x24"	54"	
		Re 900—Sc 6-1923					
2	Whistler	Rogers K & G 182	7-20-1849	4-4-0	16x20"	66"	
302		Rhode Island 2852	1892	4-6-0	18x24"	54"	
		Re 901—Sc 6-1923					
3	Westerly	Taunton L.W.# 55	7-18-1850	4-4-0	15x20"	66"	New
		cylinders applied	1874				
303		Rhode Island 2853	1892	4-6-0	18x24"	54"	
		Re 902—Sc 12-31-1922					
4	Connecticut	Taunton L.W.# 85	11-14-1851	4-4-0	14x20"	60"	
304		Rhode Island 2854	1892	4-6-0	18x24"	54"	
		Re 903—Sc 6-1923					
5	C. Phelps	Matfield Mfg. Co.	1854	4-4-0	?	?	
305		Rhode Island 29221	1904	0-6-0	19x26"	51"	
		Re 2325—Sc 4-30-1926					
6	Gov. Anthony	Amoskeag 123	5- 4-1854	4-4-0	15x24"	54"	
306		Rhode Island 29222	1904	0-6-0	19x26"	51"	
		Re 2326					
7	C. P. Williams	Hinkley & Wms	1857	4-4-0	?	?	
307		Rhode Island 2710	1892	0-6-0	18x24"	50"	Ex NH #238
		Re 2503—Sc 2-1917					
8	Mat. Morgan Mystic	Danforth & Cooke	1859	4-4-0	15x22"	66"	Renamed
		Re 308 Sc prior to 1900					
308		Rhode Island 29223	1904	0-6-0	19x26"	51"	
		Re 2327					
9	A. S. Mathews	Taunton L.W.# 274	1860	4-4-0	16x22"	66"	
309		Sc—1895		4-4-0			
309		Rhode Island 2711	1892	0-6-0	18x24"	50"	Ex NH #239
		Re 2504—Sold 1924					
10	Thos. Tileston	Taunton L.W.# 281	1860	4-4-0	16x22"	66"	
310		Scrap—prior to 1900		4-4-0			
310		Rhode Island 29224	1904	0-6-0	19x26"	51"	
		Re 2328					
11	W. S. Cary	Taunton L.W.# 307	1863	4-4-0	16x22"	66"	
		New boiler	1885				
311				4-4-0	Sc prior to 1904		
12	S. D. Babcock	Taunton L.W.# 334	1864	4-4-0	16x24"	66"	
		New boiler	1888				
312				4-4-0	Sc prior to 1899		
312		South Boston Shops	1899	4-4-0	18x24"	69"	
		Re 1589 Sc 12-1935					
13	J. H. Anderson	Lowell Mach. Shops	1865	4-4-0	Sc prior to 1894		
313		Hinkley 1809	1889	4-4-0	17x24"	60"	
		Ex N.H.#401 Re 1846 Sc 4-4-1914					

14	N. F. Dixon	Rhode Island #112	1868	4-4-0	16x22″	62″	
		Rebuilt	1887				
314				4-4-0	Sc prior to 1903		
314		Norwood Shops	1903	4-4-0	18x26″	69″	
		Re 1503—Sc 12-1935					
15	Narragansett	Rhode Island 230	1869	4-4-0	16x22″	68″	
315				4-4-0	Sc prior to 1903		
315		Rhode Island 29225	1904	0-6-0	19x26″	51″	
		Re 2329—Sc 1-31-1935					
16	David S.Babcock	Rhode Island 303	1871	4-4-0	16x24″	66″	
316		Re 2037—Sc 1-1905		4-4-0			
17	J. A. Burnham	Manchester 292	1871	4-4-0	16½x24″	66″	
317		Re 2016—Sc 9-20-1906		4-4-0			
18	Philip C. Lovell	Rhode Island 422	1872	0-4-0	14x24″	52″	
318		Re 2911—Sc 9-15-1906		0-4-0			
19	Earthquake	Manchester 542	1873	4-4-0	17x24″	66″	Renamed
	S. F. Denison						
319		Sc prior to 1904		4-4-0			
20	J. B. Gardiner	Rhode Island 618	1873	4-4-0	17x24″	66″	
320	Rebuilt	South Boston Shop	1899	4-4-0	16x24″	69″	
		Re 2000—Sc 12-31-1915					
21	Rhode Island	Manchester 662	1874	4-4-0	17x24″	66″	
321		Sc prior to 1902					
321		Roxbury Shops	1902	4-4-0	18x24″	69″	
		Re 1578—Sc 2-29-1928					
22	J. L. Prouty	Manchester 663	1874	4-4-0	17x24″	66″	
322		Sc prior to 1904					
322		Baldwin	1904	0-6-0	18x24″	51″	
		Re 2528—Sc 8-31-27					
23	Victor	Manchester 683	1874	0-4-0	15x24″	50″	
323		Re 2901—Sc 4-10-1907					
24	Henry Morgan	Manchester 732	1876	4-4-0	16x24″	66″	
		New boiler	1890				
324		Re 1932—Sc 7-9-1906					
25	Providence	Manchester 759	1879	4-4-0	17x24″	66″	
325		Re 1937—Sold to Narragansett Pier R. R. #7—1916					
26	Pequot	Rhode Island 835	1880	4-4-0	18x26″	60″	
326		Re 1744—Sc 12-24-1909					
27	Groton	Rhode Island 867	1880	4-4-0	18x22″	66″	
327		Re 1705—Sc 6-15-1917					
28	F. B. Noyes	Manchester 925	1881	4-4-0	17x24″	60″	
328		Re 1934—Sc 10-17-1905					
29	G. M. Miller	Manchester 926	1881	4-4-0	17x24″	66″	
329		Re 1935—Sc 4-13-1908					
30	Gov. Howard	Manchester 927	1881	4-4-0	17x24″	66″	
330		Re 1931—Sc 11-23-1905					
31	Seaside	Rhode Island 1191	1882	0-4-0T	16x20″	52″	
331		Re 2120—Sold—Southern I & E Co. 8-4-1905					
32	G. F. Ward	Rhode Island 1192	1882	4-4-0	18x24″	72″	
332		Re 1657—Sc 4-10-1907					
33	H. B. Anthony	Rhode Island 1267	1882	4-4-0	17x24″	60″	
333		Re 1902—12-31-1915					
34	Connecticut	Rhode Island 1316	1883	4-4-0	18x24″	72″	
		New boiler	1893				
334		Re 1703—Sc 2-1917				69″	
35	W. E. Rutter	Rhode Island 1409	1883	0-4-4T	15x20″	56″	
335		Re 2130—Sc 1-1913					
36	Not named	Manchester 1175	1884	4-4-0	17x24″	66″	
336		Re 1885—Sc 8-18-1919					
37	Not named	Manchester 1176	1884	4-4-0	18x24″	60″	
337		Re 1755—Sc 10-1913					

38	S. D. Babcock	Manchester	#1239	1885	4-4-0	18x22"	68"
		Cyl. bushed		1893		17x22"	
338		Re 1905—Sc 10-24-1913					
39	David S.Babcock	Manchester	1240	1885	4-4-0	18x22"	68"
		Cyl. bushed		1893		17x22"	
339		Re 1896—Sc 4-4-1914					
40	J. W. Miller	Rhode Island	1733	1887	4-4-2	18x24"	72"
		Rebuilt		1894	4-4-0		
340		Re 1697—Sc 12-31-1925					69"
41	Not Named	Rhode Island	1832	1887	0-4-4T	15x20"	56"
341		Re 2129—Sold—Wood River R. R. #9—1904					
42	Not Named	Manchester	1384	1888	4-4-0	17x24"	66"
342		Re 1834—Sc 12-19-1906					
43	Not Named	Manchester	1385	1888	4-4-0	17x24"	66"
343		Re 1835—Sc 10-22-1918					
44	Not Named	Rhode Island	2284	1889	4-6-0	19x26"	60"
344		Re 891-973—Sc 5-31-1925					
45	Not Named	Rhode Island	2285	1889	0-4-4T	15x20"	56"
345		Re 2128—Sc 2-1908					
46	Not Named	Rhode Island	2306	1889	0-6-0	18x24"	50"
346		Re 2515—Sc 6-1923					
47	Not Named	Manchester	1450	1890	4-4-0	17x24"	66"
347		Re 1880—Sc 2-1917					
48	Not Named	Rhode Island	2374	1890	4-4-0	18x24"	72"
348		Re 1656—Sc 10-10-1923					69"
49	Not Named	Manchester	1485	1890	4-6-0	19x26"	60"
349		Re 890-972—Sc 10-16-1926					
50	Not Named	Rhode Island	2584	1890	0-6-0	18x24"	50"
350		Re 2512—Sc 2-1917					
51	Not Named	Rhode Island	2585	1890	0-6-0	18x24"	50"
351		Re 2507—Sc 7-1923					
52	Not Named	Rhode Island	2586	1890	0-6-0	18x24"	50"
352		Re 2508—Sc 6-1923					
53	Not Named	Manchester	1525	1891	4-4-0	17x24"	66"
353		Re 1830—Sc 11-30-1919					
54	Not Named	Manchester	1526	1891	4-4-0	17x24"	66"
354		Re 1831—Sc 9-29-1919					
55	Not Named	Rhode Island	2647	1891	0-4-4T	15x20"	56"
355		Re 2125—Sold 6-1907					
56	Not Named	Rhode Island	2648	1891	0-4-4T	15x20"	56"
356		Re 2126—Sold J. J. O'Brien Con. Co., Waterbury, Ct. 4-1907					
57	Not Named	Rhode Island	2649	1891	0-4-4T	15x20"	56"
357		Re 2127—Sc 11-17-1913					
58	Not Named	Rhode Island	2600	1891	4-4-0	18&28x24"	78"
	Rebuilt			1894	4-4-0	18x24"	78"
358		Re 1685—Sc 6-1-1923					69"

PROVIDENCE & WORCESTER R. R.

The above company was incorporated in the States of Massachusetts and Rhode Island, in 1844, authorizing the construction of a railroad from Worcester, Massachusetts, through the Blackstone valley towns of Grafton, Uxbridge to Providence, Rhode Island. On October 25, 1847, the road was opened for transportation of passengers and freight, a distance of 43 miles. In 1874 the 6 mile branch from Valley Falls to East Providence was constructed. On May 1, 1889, the Providence & Worcester R. R. was leased to the New York, Providence & Boston R. R. for 99 years and on July 1, 1892, the lease was transferred to the New York, New Haven & Hartford R. R.

The earliest record we have of the engines on this road is found in the Annual Report of 1853:

Grafton	Taunton L. W.	# 24	10-	-1848	16x20″ 54″	26 tons
Orray Taft	Geo. Corliss			1851	15x20″ 66″	25 tons
Providence	Taunton L. W.	144	9-15-1853		14x20″ 66″	23 tons
Worcester	Taunton L. W.	132	3-31-1853		14x20″ 66″	23 tons
Gen'l Greene	Rogers K & G	105	9- 8-1847		14x18″ 64″	20 tons
Gen'l Taylor	Rogers K & G	102	7-28-1847		14x18″ 64″	20 tons
Com. Perry	Rogers K & G	108	10- 9-1847		14x18″ 64″	20 tons
Pawtucket	Taunton L. W.	4	8- -1847		14x18″ 64″	18 tons
Lonsdale	Taunton L. W.	3	8- -1847		14x18″ 64″	18 tons
Woonsocket	Taunton L. W.	5	9-30-1847		14x18″ 64″	18 tons

Of the above engines, only the "Worcester" and "Providence" ever carried numbers, 1 and 2 respectively. The three engines from the Rogers works were sold, road unknown. The "Grafton" was also sold, road unknown. The "Pawtucket" was sold to the New Bedford R. R. and carried the name "Comet" on that road, the "Lonsdale" was returned to the Taunton Works, rebuilt, and sold to David Levy Yulee, President of the Fernindina & Cedar Key R. R. The "Woonsocket" probably accompanied the "Lonsdale".

Two additional engines were built by the Taunton Works for this road that are not listed in this 1853 roster:

Slater	Taunton L. W.	# 18	7-22-1848	16x20″ 54″	25 tons
John W. Lincoln	Taunton L. W.	155	1-30-1854	13x20″ 66″	

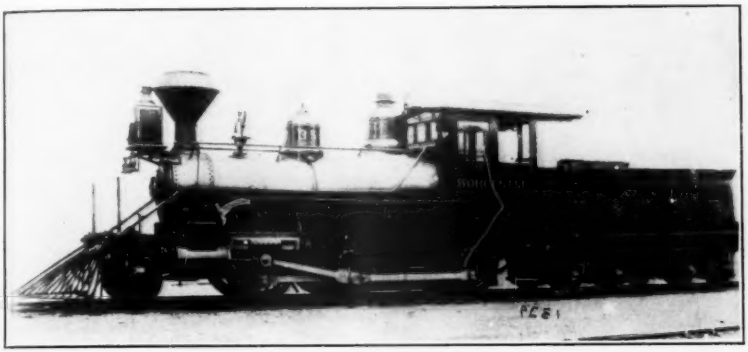
The "Slater" was sold to the Cleveland & Pittsburgh R. R. and the "John W. Lincoln" was sold, road unknown.

The numerical assignment of the Providence & Worcester locomotives was as follows:

1	Worcester	Taunton L. W.	#132	3-31-1853	4-4-0	14x20″ 60″
	Rebuilt			2- -1864	4-4-0	15x20″ 60″
1	Wm. M. Durfee	Rhode Island	840	1880	4-4-0	17x22″ 60″
359	NYP&B #101, Re 2032—Sc 12-22-1909					
2	Providence	Taunton L. W.	144	9-15-1853	4-4-0	14x20″ 66″
	Rebuilt			1864	4-4-0	15x20″ 60″
2	E. Kelton	Rhode Island	839	1881	4-4-0	18x24″ 60″
360	NYP&B #102, Re 1760—Sc 10-1913					

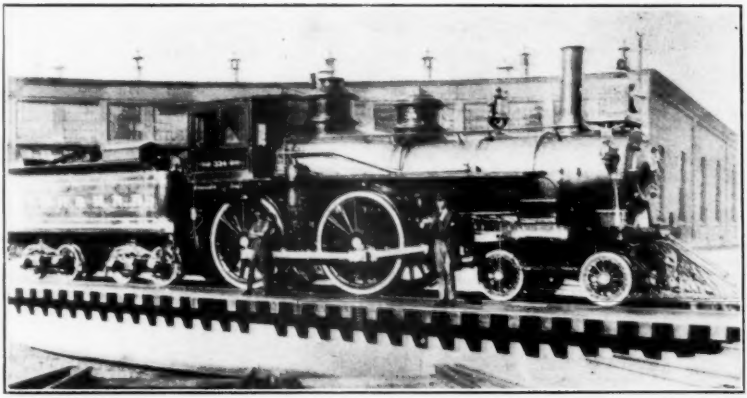
In 1876 the "Worcester" was rebuilt as an outside connected engine by the P & W; in 1875 the "Providence" was rebuilt as an outside connected engine by the Rhode Island Locomotive Works and both engines were sold to the Pittsburgh & Lake Erie R. R.

3	Slater	Mason	29	10-23-1855	4-4-0	14x22″ 60″
	Renamed "Judge Chapin"—"Berkeley"—Coal burner, Boardman boiler					
	Rebuilt			1873 Sold		
3	J. E. Bacon	Rhode Island	811	1881	4-4-0	18x24″ 60″
361	NYP&B #103,					
	Rebuilt	South Boston Shop		1899	4-4-0	18x24″ 69″
				Re 1590—Sc 9-30-1929		

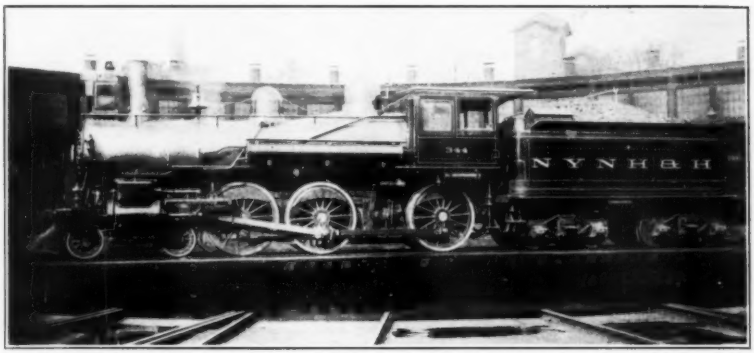


Courtesy of J. W. Merrill.

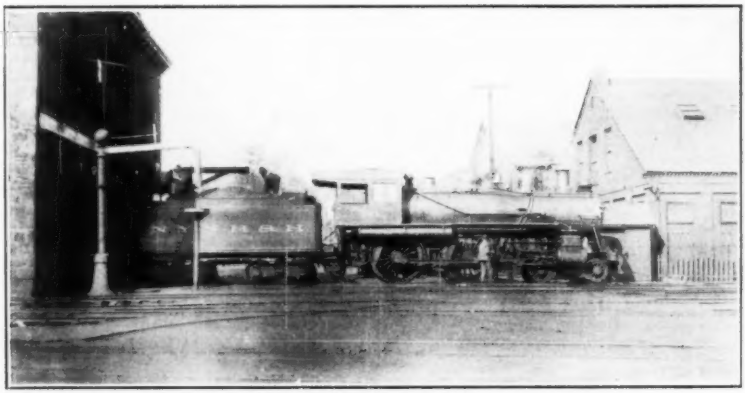
P. & W. "Worcester" #35—Rhode Island, 1884.



N. Y. N. H. & H. #334—Rhode Island, 1883.



N. Y. N. H. & H. #344—Rhode Island, 1889.



N. Y. N. H. & H. #1273—Schenectady, 1896. Formerly #409.

4	Earl P. Mason	Mason	54	11- 4	1856	4-4-0	15x22″	66″
4	D. R. Arnold	Rhode Island	889		1881	0-4-0	16x24″	52″
362	NYP&B #104, rebuilt	Rhode Island			1892	Re 2821—Sold to		
	Garfield & Proctor Coal Co., New Bedford, Mass. 5-31-1907							
5	Isaac Davis	Mason	62	4- 6	1857	4-4-0	15x22″	66″
5		Rhode Island	2387		1890	4-4-0	17x24″	60″
363	NYP&B #105, Re 1845—Sc 4-30-1915							
6	Paul Whitin	Mason	105	4- 1	1861	4-4-0	16x24″	66″
6	Paul Whitin	Rhode Island	6		1871	4-4-0	17x22″	60″
364	NYP&B #106. Scrap prior to 1904.							
7	Pawtucket	Mason	170	8-15-1864		4-4-0	15x24″	66″
	W. A. Carlisle (renamed)				1884			
7		Hinkley	1804		1889	4-4-0	17x24″	60″
365	NYP&B #107. Re 1847—Sc 10-24-1913.							
8	Lonsdale	Mason	227	3- 5	1866	4-4-0	16x22″	60″
8	E. B. Stoddard	Rhode Island	984		1881	4-4-0	17x22″	60″
366	NYP&B #108, Re 1941—Sc 7-29-1914.							
9	Albion	Mason	228	3-12	1866	4-4-0	16x22″	60″
9		Rhode Island	1567		1885	4-4-0	17x24″	60″
367	NYP&B #109, Re 1852—Sc 2-1917							
10	Gov. Burnside	Rhode Island	1	9-27	1866	4-4-0	16x22″	60″
10	Gov. Burnside	Rhode Island	1080		1881	0-4-4T	16x20″	52″
368	NYP&B #110, Re 2123—Sold							
11	Wm. D. Hilton	Rhode Island	2	10-23	1866	4-4-0	16x22″	60″
11	Alex. Duncan	Rhode Island	988		1881	4-4-0	17x22″	60″
369	NYP&B #111, Re 1930—Rebuilt into inspection engine "Naugatuck", renumbered 1. Sc 1929							
12	Active	Rhode Island	8	1-17	1867	0-4-0	14x22″	48″
	Jack Quint (renamed)							
12	Jack Quint	Rhode Island	1979		1888	0-4-4T	16x20″	56″
370	NYP&B #112, Re 2115—Sc 1-17-1913							
13	Wm. H. Jourdan	Rhode Island	11	3-28	1867	0-4-0	14x22″	48″
13	E. C. Hull	Rhode Island	1434		1883	0-4-4T	16x20″	50″
371	NYP&B #113, Re 2118—Sold—E. H. Wilson 11-20-1907							
14	Orray Taft	Rhode Island	12	5-	1867	4-4-0	16x22″	60″
14	Orray Taft	Rhode Island	1081		1881	0-4-4T	16x20″	50″
372	NYP&B #114, Re 2119—Sc 3-14-1911							
15	John R. Balch	Rhode Island	68	9-22	1868	4-4-0	16x24″	60″
15	John R. Balch	Rhode Island	1566		1885	4-4-0	17x24″	60″
373	NYP&B #115, Re 1853—Sc 2-1917							
16	Harvey Chace	Rhode Island	69	9-25	1868	4-4-0	16x24″	60″
16		Rhode Island	1608		1886	4-4-0	17x24″	60″
374	NYP&B #114, Re 1850—Sc 2-1917							
17	Woonsocket	Rhode Island	111		1869	4-4-0	16x24″	60″
	NYP&B #117—Sc prior to 1896							
44		Rhode Island	2307		1889	0-6-0	18x24″	52″
	NYP&B #144—NH #401 Renumbered							
375	Re 2516—Sold 5-1923							
18	Grafton	Rhode Island	173		1870	0-4-0	15x22″	48″
376	NYP&B #118—Scrap prior to 1904							
19	John W. Lincoln	Rhode Island	133		1869	4-4-0	16x24″	60″
19	John W. Lincoln	Rhode Island	1607		1886	4-4-0	17x24″	60″
377	NYP&B #119—Re 1851—Sc 1-20-1919							
20	Wm. S. Slater	Rhode Island	170		1870	4-4-0	16x24″	66″
378	NYP&B #120—Scrap prior to 1904							
378		Rhode Island	29226		1904	0-6-0	19x26″	51″
	Re 2330—Active							
21	Joseph Kelly	Rhode Island	260		1871	4-4-0	16x24″	60″
21		Rhode Island	2385		1890	2-6-0	18x24″	54″
379	NYP&B #121—Re 700—Sc 4-30-1915							
22	G. L. Spencer	Rhode Island	261		1871	2-6-0	17x24″	60″
		Rebuilt			1884	0-6-0	17x24″	60″

380	NYP&B #122—Re 2700—Sc 1-15-1908							
23	Geo. A. French	Rhode Island	#371	1871	0-4-0	14x24″	48″	
381	NYP&B #123—Scrap—prior to 1904							
24	Lyman Jencks	Rhode Island	370	1872	0-4-0	15x24″	48″	
382	NYP&B #124—Re 2902—Sc 7-20-1911							
25	John E. Taft	Rhode Island	412	1872	4-4-0	16x24″	60″	
	Job Lawton (renamed)			1879				
25		Rhode Island	2386	1890	2-6-0	18x24″	54″	
383	NYP&B #125—Re 701—Sc 10-24-1913							
26	William Capron	Rhode Island	413	1872	4-4-0	16x24″	60″	
26		Hinkley	1805	1889	0-4-0	16x24″	54″	
384	NYP&B #126—Re 2804—Sc 4-30-1915							
27	Hempstead	Rhode Island	397	1872	4-4-0	10x18″	54″	
	Sold to Wood River R. R., 1879, renamed "Wincheck."							
27	A. E. Quackenboss	Rhode Island	698	1879	0-4-0	15x22″	51″	
385	NYP&B #127—Re 2907—Sc 9-15-1906							
28	Estus Lamb	Rhode Island	520	1873	4-4-0	16x24″	60″	
28	Estus Lamb	Rogers	3801	1887	0-4-0	16x24″	52″	
386	NYP&B #128—Re 2813—Sc 12-31-1915							
29	Judge Chapin	Rhode Island	521	1873	2-6-0	17x24″	54″	
		Reboilered		1884				
387	NYP&B #129—Scrap—1904							
30	Columbus	Rhode Island	535	1876	4-4-0	18x26″	60″	
	George F. Leete (renamed)							
388	NYP&B #130—Re 1745—Sc 12-31-1915							
31	W. P. Comstock	Rhode Island	1007	1881	0-4-0	16x24″	48″	
389	NYP&B #131—Re 2823—Sc 4-12-1907							
32	A. G. Sherman	Rhode Island	1082	1881	0-4-4T	16x20″	52″	
390	NYP&B #132—Re 2124—Sold Southern I & E Co. 8-4-1905							
33	W E C Holbrook	Rhode Island	1189	1882	0-4-4T	16x20″	52″	
391	NYP&B #133—Re 2121—Sc 10-14-1905							
34	A. C. Sweeting	Rhode Island	1190	1882	0-4-4T	16x20″	52″	
392	NYP&B #134—Re 2122—Sold—E. H. Wilson 11-20-1907							
35	Worcester	Rhode Island	1452	1884	2-6-0	18x24″	56″	
393	NYP&B #135—Re 705—Sc 11-20-1919							
36	Pawtucket	Rhode Island	1465	1884	0-4-0	17x24″	52″	
394	NYP&B #136—Re 2801—Sc 1-19-1910							
37		Rhode Island	1476	1884	0-4-0	17x24″	52″	
395	NYP&B #137—Re 2802—Sc 4-30-1915							
38		Rogers	3803	1887	0-4-0	16x24″	52″	
396	NYP&B #138—Re 2814—Sc 12-31-1915							
39		Rhode Island	1833	1887	2-6-0	18x24″	54″	
397	NYP&B #139—Re 702—Sc 1-20-1919							
40		Rhode Island	1834	1887	2-6-0	18x24″	54″	
398	NYP&B #140—Re 703—Sc 9-29-1919							
41		Rhode Island	1835	1887	2-6-0	18x24″	54″	
399	NYP&B #141—Re 704—Sc 11-20-1919							
42		Hinkley	1808	1889	4-4-0	17x24″	60″	
400	NYP&B #142—Re 1848—Sc 7-29-1914							
43		Hinkley	1809	1889	4-4-0	17x24″	60″	
401	NYP&B #143—Re NH 313-1846—Sc 4-4-1914							
44		Rhode Island	2307	1889	0-6-0	18x24″	52″	
402	NYP&B #144—Re NH 375-2516—Sold 5-1923							

P & W Nos. 43 and 44 were numbered in continuation in the N Y P & B and N Y N H & H numbers. With the coming of the big 4-4-0's in 1896, it was decided to assign these engines to the 400 series and the two P & W engines replaced other engines that were discarded.

401-420 Schenectady 4441-4460 1896 4-4-0 20x24″ 73″ 131000 200#

These were the first large passenger engines and were assigned Shore Line service. They were renumbered 1265-1284 and in later years were superheated, equipped with outside gears. Of the twenty engines, nine (9) were scrapped 12-1935, the balance are still in service.

421-430	Schenectady	4461-4470	1896	2-6-0	20x28″	63″	145000	200#
431-440	Schenectady	4673-4682	1898	2-6-0	20x28″	63″	145000	200#

These were the first large freight engines and they too were placed in Shore Line service. They were renumbered 470-479 and 460-469. Some of these engines were superheated and equipped with outside gears and ten are still in service.

441-448	Schenectady	5447-5454	1900	0-6-0	20½&31x26″	51″	132000	215#
449	Schenectady	5456	1900	0-6-0	20½&31x26″	51″	132000	215#
450	Schenectady	5455	1900	0-6-0	20½&31x26″	51″	132000	215#

The compound switchers were soon simplified and had 19x26″ cylinders tho' two of them appear as originally built in the 1907 classification. In 1904 they were renumbered 2310-2319, but the 2318 was again renumbered 2324. Seven of these engines are still in service.

Of the many engines on the N. Y. P. & B. R. R., perhaps the most colorful of the lot was the compound, No. 58. She was tried on several of the New England roads and then purchased by the N. Y. P. & B. In 1894, the New Haven rebuilt her to a simple engine and in later years the 78″ drivers were cut down to 69″. The new 4-4-0 Schenectady engines replaced her from Boston-New London service and she was subsequently assigned to the Taunton Division, running between Newport, R. I. and Boston, assigned to a train known as the "Dandy." This train consisted of a combined baggage and smoker, two coaches and a parlor car. At Taunton, two more coaches and a combined smoker and baggage car from New Bedford were added. The train was entirely vestibuled with the old fashioned narrow vestibules. This seven car train was handled from Taunton to Boston with only one stop at Stoughton and the running time for the 37 miles was about 55 minutes. One summer, during a shortage of motive power, this engine and another alternated by making an additional round trip from Fall River and Boston, thus adding 118 more miles to the 140 made between Newport and Boston. The New Bedford people wanted a parlor car on this train and about fifteen years after this engine was built, it was handling this eight car vestibuled train. More new engines on the Shore Line caused a shaking down of power and this was the last summer the 358 handled the "Dandy", but in her day, with the silver star on her headlight and the golden spread eagle mounted on the sand dome and handsomely striped, she made a beautiful picture on this vestibuled train that the writer has seen many a time.

With the renumbering of the locomotives in 1904, groups of 2-6-0 engines were assigned these numbers:

300-324	K-1c	Rhode Island	1902	2-6-0	20x28″	63″	154000	Ex NH 551-575
325	K-1b	Schenectady	1900	2-6-0	20x28″	63″	154000	Ex NH 535
326-350	K-1b	Schenectady	1905	2-6-0	20x28″	63″	153000	
351-367	K-1b	Rhode Island	1904	2-6-0	20x28″	63″	151000	Ex NH 884-900
368-370	K-1b	Rhode Island	1904	2-6-0	20x28″	63″	151000	Ex NH 881-883
371-390	K-1b	Rhode Island	1903	2-6-0	20x28″	63″	151000	Ex NH 576-595
391-395	K-1b	Rhode Island	1903	2-6-0	20x28″	63″	151000	Ex NH 596-600
396-419	K-1b	Schenectady	1900	2-6-0	20x28″	63″	151000	Ex NH 511-534
420-434	K-1b	Schenectady	1905	2-6-0	20x28″	63″	153000	
435-479	K-1b	Baldwin	1905	2-6-0	20x28″	63″	153000	

In closing, mention should be made of N. Y. P. & B. No. 40. As built, she was intended to be of the 4-4-0 type but possibly bridge conditions on account of her weight necessitated the addition of a pair of trailing trucks. As a 4-4-2 she evidently ran for some time because the New Haven records indicate a rebuilding in 1894. With a weight of 117600 lbs., she was easily the heaviest engine on the road. Pictures of this engine exist both as a 4-4-2, lettered N. Y. P. & B. but I do not recall seeing one of her as a 4-4-0 with the same lettering.

Further explanation should be made of the two 0-6-0 switchers, originally numbered 238 and 239. As stated in Bulletin No. 41, they were subsequently renumbered 307 and 309 and they appear in this list. They were replaced by two switchers which were not noted in Bulletin No. 41.

238	Rhode Island	1894	0-6-0	18x24″	45″	90400	Re 2549—Active
239	Rhode Island	1894	0-6-0	18x24″	45″	90400	Re 2550—1-20-1919

Additional information has been received as to the final disposition of some of the Providence & Worcester locomotives:

The No. 26—"W. M. Capron", Rhode Island, 1872, was sold to the Upper Coos & Hereford R. R. named "Stratford" and numbered 1.

The No. 19—"J. W. Lincoln," Rhode Island, 1869, was sold in 1887 to the Pontiac Pacific Jct. Ry., renamed "J. Poupore," numbered 2 and scrapped in 1902.

The next group of engines came from the Housatonic R. R. and they will be listed in our Bulletin No. 44.

History of Illinois Central Passenger Stations on the Chicago Lake Front

By Charles H. Mottier,
Engineering Assistant, Illinois Central System

THE act incorporating the Illinois Central was accepted by it on March 19, 1851.

Slide 1. Roswell B. Mason

Three days later Mr. Roswell B. Mason, the first president of the Western Society of Engineers (June 14, 1869 to June 13, 1870) and mayor of Chicago from 1869 to 1871, was appointed Engineer in Chief and entrusted with the task of constructing the first land grant railroad which, when completed, was to be the largest railroad in the world.

Chicago at that time was a rapidly growing city of about 30,000 population. The Illinois Central desired an entrance along the west bank of the Chicago River extending north to Kinzie Street to connect with the Galena and Chicago Union Railroad (now a part of the Chicago and North Western System). A route had also been surveyed along the east bank of the river. Certain interests in the city, however, insisted on locating the railroad on the lake front to save the city the cost of shore protection which was then a serious financial burden.

The Michigan Central at this same time was building west to Chicago. It was experiencing difficulty in securing the right to enter the state of Illinois and the City of Chicago. To facilitate the early completion of the road it allied itself with the Illinois Central, making a connection with it at Calumet (now Kensington). From this point north it was to use the rails of the Illinois Central and for this reason every effort was made to push construction on this portion of the line so the Michigan Central could begin operation between Chicago and the east. Work was completed to the city limits, then at 22nd Street, but at this point had to be suspended pending passage of an ordinance granting the right to enter and operate within the city.

Temporary freight and passenger stations had been established just outside the city limits and on the morning of May 22, 1852 this first completed section of the Illinois Central was formally opened and a Michigan Central passenger train was run from Chicago to the state line. Regular freight and passenger trains were placed in service a few days later.

On June 14, 1852, after months of controversy, an ordinance was passed granting the railroad company entrance into the city. North of Park Row (now E. 11th Place) the right of way was over the waters of the lake 400 ft. east of the west line of Michigan Avenue. This ordinance was accepted by the company on September 2, 1852.

Once the legal difficulties were removed, the work of construction north of 22nd Street proceeded rapidly. Within a few weeks the track

was extended to Twelfth Street where again temporary freight and passenger stations were built pending the completion of more adequate facilities north of Randolph Street approximately one year later.

Slide 2. View of railroad trestle in lake.

Breakwater protection had to be built and north of Randolph Street the lake had to be filled in to provide more ground on which to build the terminal facilities.

Slide 3. Map of S. Water Street territory in 1854.

In 1853 a temporary passenger station was built on newly filled ground on the south side of and facing S. Water Street. A map of a government survey made in August 1854 shows this building approximately 100 ft. long and 30 ft. wide.

Slide 4. Chicago Lake Front in 1853.

An old drawing of the 1853 Chicago Lake Front also shows this building. It is the first Illinois Central passenger station in the city of which we have been able to locate either a plan or picture. The temporary stations at 22nd Street and 12th Street to which previous references have been made, were probably quickly constructed sheds of small dimensions to meet only the most urgent requirements.

Regular train service was started in and out of the South Water Street temporary station on December 3, 1853.

Slide 5. Map of South Water Street territory in 1856.

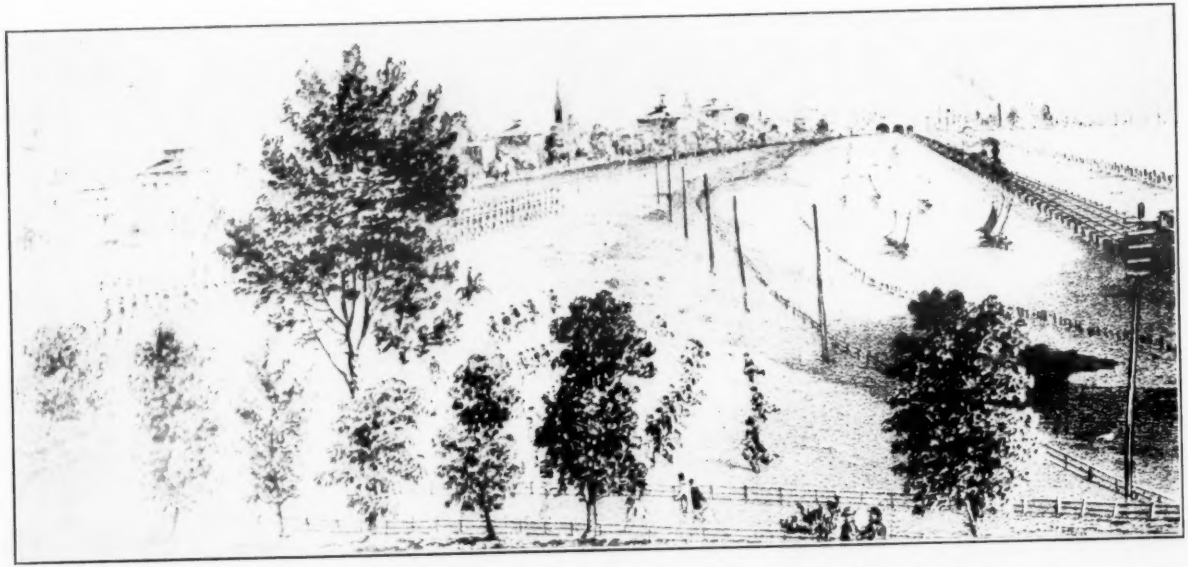
In July 1855 work was started on the "huge new permanent passenger station" which was to face north on S. Water Street with its west line forming the east side of Central Avenue (now Beaubien Court). The building was completed and opened to service in April 1856. It was 504 ft. long north and south and 166½ ft. wide. There were eight tracks in the train shed laid in three groups. The two west groups each consisted of three tracks and the east group of two tracks.

Slide 6. General view of old S. Water Street Station from the south.

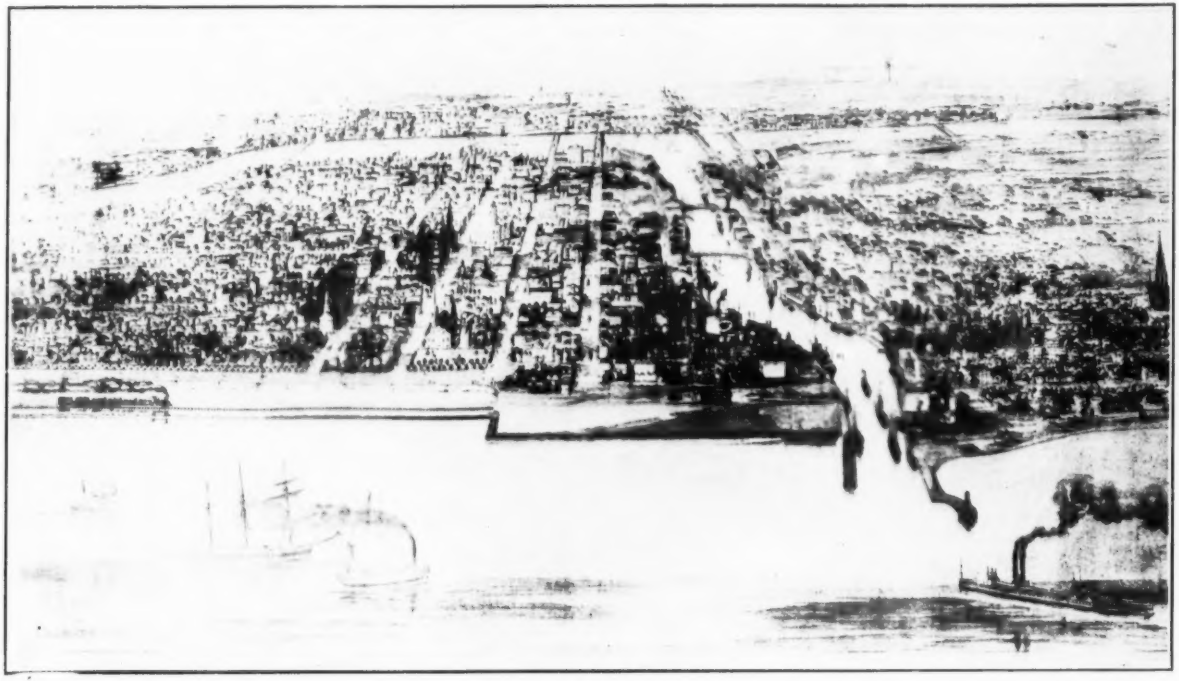
The baggage room, built on one of the platforms, was 125 feet long, with offices for trainmen above. The train shed roof was supported on circular Howe Truss arches with a 166 ft. span and a rise of 36 ft. and was the longest span constructed up to that time.

Slide 7. General view of old S. Water Street Station from the east.

The walls of the headhouse and train shed were constructed of rubble masonry, with stone from Joliet. The building was heated by steam and was lighted "admirably" with gas, 2668 ft. of pipe being used for this purpose.



View of Illinois Central Trestle in Lake Opposite Michigan Avenue Looking North from Park Row.



View of Chicago Lake Front—1853.

Slide 8. View of old S. Water Street Headhouse from the northeast.

The headhouse or main part of the building was 168 ft.x40 ft., three and one-half stories high and extended along S. Water Street. In the upper floors were located the offices of all departments of the road. Among the officers were many notables of that date, distinguished beyond the sphere of their railroad activities. Among these were:

General Mason Brayman
General Nathaniel Banks—Resident Director
General Ambrose E. Burnside—Cashier and Treasurer
General Geo. B. McMillen—Chief Engineer and later Vice President.

To these offices Abraham Lincoln, then attorney for the company, made numerous visits.

The cost of the station was approximately $180,000.00. It was truly an outstanding structure for that day.

On June 23, 1852 the Illinois Central secured an amendment to its charter permitting it to build a railroad from the Lake Front to the south branch of the Chicago River. This road which is now known as the St. Charles Air Line, was completed in 1856.

On March 30, 1856 the Chicago, Burlington and Quincy R. R. and the Galena and Chicago Union R. R. ran their first trains into the Lake Front passenger station, using the new St. Charles Air Line connection. Before the end of the year there were fifteen trains being operated daily in and out of the station as follows:

Illinois Central—six; Michigan Central—five; Chicago, Burlington & Quincy, two; and Galena and Chicago Union, two.

On July 21, 1856 the first Illinois Central suburban train was operated between Chicago and Hyde Park. This newly established suburban service was destined to play a very important part in the passenger station problem in the Lake Front.

In Oct. 1857 the Galena and Chicago Union ceased operating passenger trains to the Lake Front Station.

Railroad traffic grew rapidly. The South Water Street station was soon outgrown and it became evident that larger quarters would be required.

To meet the demand for greater facilities plans were prepared for a station 260 ft. wide, 760 ft. long, to cost $2,000,000 and to be located on the public land between Michigan Avenue and the right of way, lying between Randolph and Monroe Streets. The famous "Lake Front Act" was passed by the General Assembly of Illinois in 1869 enabling the three railroads, the Illinois Central, the Michigan Central and the Burlington to carry out these plans. Opposition to the program was successful in blocking the work and on April 15, 1873 the act was repealed by the legislature.

Slide 9. Central Depot after fire of 1871.

In the meantime the famous conflagration of October 8 and 9, 1871 destroyed the great Central Depot. Only the walls of the structure were left standing after the fire.

A wooden depot had been erected at 22nd Street in 1868 to serve both the suburban and through passenger business, and this was used by the Illinois Central and Michigan Central as a temporary terminal station.

The Chicago, Burlington & Quincy Railroad fitted up an empty icehouse at Indiana Avenue and Sixteenth Street for a temporary station. The general offices of the Illinois Central, which had been in the depot building, were established at 510 Wabash Avenue, in a building which was also occupied by the offices of the Pullman Palace Car Company and the Chicago, Burlington & Quincy Railroad. The Illinois Central offices were later moved to 58 Michigan Avenue and still later to 78 Michigan Avenue. As soon as the debris from the fire could be cleared away trains were operated from between the bare walls of the burned structure but tickets could be purchased and baggage checked only at 22nd Street.

The necessity of providing facilities at the earliest possible moment resulted in erecting a one story wood building at the north end of the station tracks, sufficient only for the most urgent requirements of the travelling public. The rubble stone side walls and south end of the train shed were allowed to remain standing but the train shed roof was not rebuilt. Probably no one connected with the railroad company at that time surmised that trains were destined to arrive and depart from this train shed with its blue-vaulted-sky roof for the next twenty-two years.

The wooden station built at the north end of the station tracks after the fire, served for only a short period of approximately two years. On January 20, 1874 the station was again destroyed by fire.

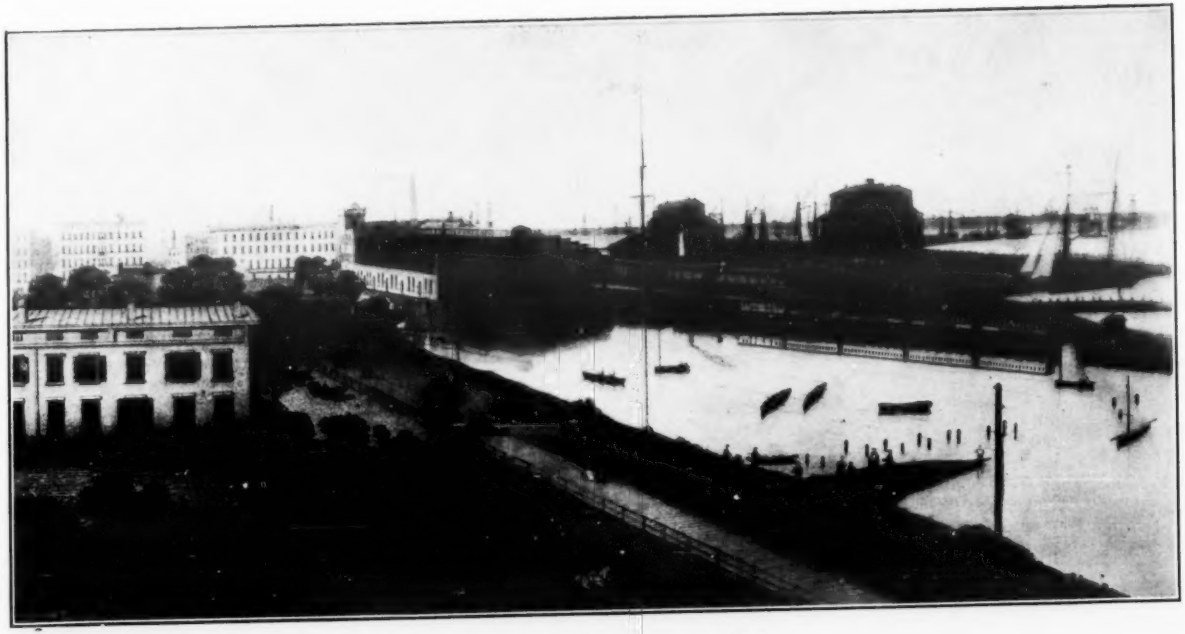
The twenty-second street station was again used temporarily as the terminal station and the South Water Street station was again rebuilt 40 ft. x 120 ft. along the same general lines as before except that this time it was constructed of brick.

Slide 10. Picture of 1874 station from south.

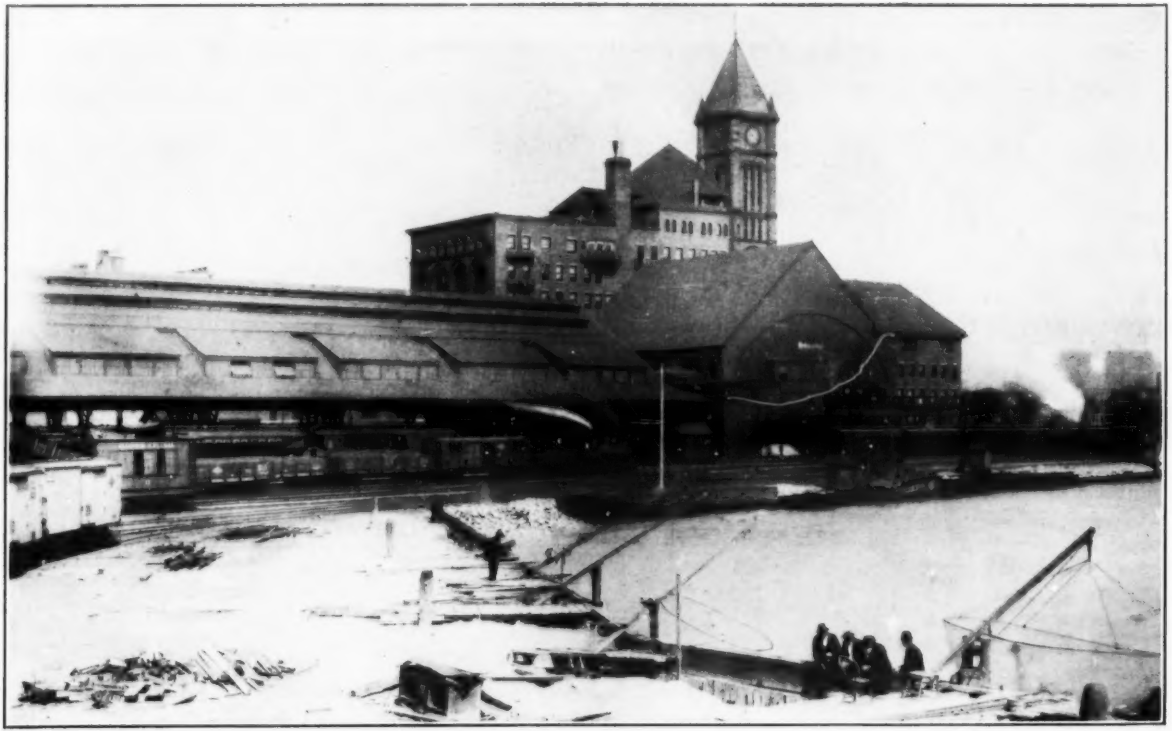
This station served until 1893. Pictures showing the trains arriving and departing from between the bare stone walls of the old train shed recall memories of that early day to many of our older citizens. Railroad employes who worked in the old station now marvel at how such large crowds of through passengers were handled through the small station building at South Water Street.

As the suburban service grew the suburban trains were handled as far as possible from the south end of the train shed and suburban patrons boarded their trains by walking across the tracks at Lake and Randolph Streets, leaving the South Water Street station free for the handling of the through passenger business.

An extension, approximately 20 ft. wide and 100 ft. long, built later south of the old trainshed and along Beaubien Court was used for offices and as a baggage room.



General View of Old Central Depot from South.



View of Present Central Station From Southeast.

Slide 11. Track plan 1886.

In 1874 the Baltimore and Ohio made a connection with the Illinois Central at 70th Street and arranged to use its tracks into the city.

On November 17, 1874 the first B & O train was operated into the city but the Michigan Central which was a joint owner with the Illinois Central of the South Water Street passenger station, objected to the Baltimore and Ohio's use of the station and consequently the Baltimore and Ohio passenger trains were stopped south of the building.

The Baltimore and Ohio established a temporary station in the northeast corner of the Exposition Building which stood on the site of the present Art Institute. In 1883 a small brick station building was built just north of Monroe Street adjacent to the right of way and behind Battery D. Baltimore and Ohio tracks were also constructed in the park adjacent to the west right of way line. This station in the park was used until November 30, 1891, when the Baltimore and Ohio moved to their present quarters in Grand Central Station.

On June 19, 1881 the Chicago, Burlington & Quincy Railroad moved from Central Station to the Union Station at Canal and Adams Streets.

In 1880 the wooden station at 22nd Street was "replaced by a substantial brick passenger house" which was used for both suburban and through passenger business until 1907 when through trains ceased stopping at this point. It was continued as a suburban station however until the suburban platforms were moved to 23rd Street in 1926 in connection with the electrification program when its use as a station was discontinued. The building was demolished this past summer.

On October 2, 1882 the Nickel Plate commenced operation into Chicago using the Illinois Central Station at 22nd Street. Early in 1883 the Nickel Plate extended its operations over the Illinois Central tracks to the Baltimore and Ohio Station at the foot of Monroe Street, which it continued to use until May, 1883 when it made a connection with the Lake Shore & Michigan Southern and moved to the Van Buren Street station of that road, now the La Salle Street Station.

The Big Four began operation into Chicago and the S. Water Street station in 1886, continuing a service to Cincinnati which had been started by the Illinois Central in 1872, using its own rails to Kankakee and those of several other roads beyond.

In 1888 a two story brick building of irregular shape but approximately 40x88 ft. was erected on the north side of Randolph Street facing Beaubien Court, to serve the needs of the rapidly growing suburban traffic. The lower floors were used for station purposes and the upper floor for offices.

During the period 1875-1891 numerous plans for a new joint Illinois Central-Michigan Central passenger terminal were considered but the work did not progress beyond the plan stage. Finally the Illinois Central, desiring a new station in time for the World's Columbian Exposition, decided to construct its own station at Twelfth Street.

The question of foundations for the new structure received a large amount of study and marked a distinct advance in the use of supporting piles for buildings of this type. Construction was started in 1892

and service was inaugurated in the new station on April 17, 1893. The building itself was considered a monument among railway passenger stations.

Slide 12. Central Station from South East.

The large waiting room with its beautifully decorated arch ceiling and stained windows was considered a masterpiece and the 140 ft. x 610 ft. steel trainshed was then the largest of its kind in the world. The building was one of the first steel skeleton buildings erected in Chicago. The cost of the station, with appurtenances, was approximately $2,100.-000. The building in the main has remained practically as originally built though it has been necessary to make minor alterations and improvements to meet changing conditions. The ten-story annex office building was constructed in 1902 and 1903.

Slide 13. Central Station 1893 Track Plan.

The through-type terminal with the waiting room above the tracks has made possible an intensity of train operation that is almost incredible. Many changes have been made from the original track plan. The more important of which are: the elevation of the St. Charles Air Line (1898-99), the moving of the 14th Street roundhouse to 27th Street (1899), making room for substantial additions to the coach yard in 1900; the moving of the local suburban tracks from the west to the east side of the trainshed with resulting changes in trackwork (1902) and the filling in of the lake and extensive rearrangement and addition of track facilities incident to electrification and other provisions of the Lake Front Ordinance (1922-1927) which resulted in separation of through and suburban service and the location of the latter on the east side of the right of way.

The Wisconsin Central Railroad Company commenced operation over the St. Charles Air Line into Central Station December 10, 1899 and remained a tenant until 1914 when they were acquired by the Soo Line and moved to the Grand Central Station.

In 1912 the C. L. S. & S. B. Railroad (predecessor of the present South Shore Lines) began the operation of trains between Kensington and the Randolph Street suburban terminal.

The Chesapeake & Ohio began operating passenger trains into Central Station in March 1925 and continued until they ceased operation into Chicago on June 30, 1933.

Upon abandonment of through train operation into the South Water Street Station in 1893 the Michigan Central and Big Four became tenants of the new Central Station at Twelfth Street and the jointly owned station grounds at the former site were partitioned between the two owners, the Illinois Central and the Michigan Central.

Slide 14. Randolph Street Suburban Terminal in 1893.

The property for a depth east and west of 100 ft. facing along Central Avenue between Randoph Street and S. Water Street was allotted to the Illinois Central and on this land were built facilities

Randolph Street Suburban Terminal in 1893.

Van Buren Street Platform and Station on East of Right of Way, 1893.

of the Randolph Street suburban station consisting of six tracks and three island platforms served from the then existing (built in 1888) Randolph Street suburban station.

Slide 15. Randolph Street Suburban Terminal Track Plan.

By this time the suburban service had reached substantial proportions. In later years, the single track connection between the two main line tracks just south of the throat became famous for its intensive operation and was claimed to be the busiest single track steam railroad operation in the world, (Note 1).

In 1904 extensive alterations were made to the Randolph Street suburban station. An incline was built along the north side of the Randolph Street viaduct leading to the second floor of the building.

Slide 16. Randolph Street Suburban Overhead Concourse.

The waiting room, ticket offices and other station facilities were moved to this floor and the offices to the first floor. A bridge was built from the building leading over the tracks with stairways down to each platform, thus eliminating the necessity of patrons crossing tracks to reach their trains. In 1921 a pedestrian subway was completed under Michigan Avenue for the convenience of suburban patrons.

Slide 15. Randolph Street Suburban Terminal Track Plan.

In 1924 the converging of adjacent tracks into single tracks at the north end of this station was eliminated, all tracks and platforms were extended straight north and a portion of the first floor of the old coaling stations on South Water Street was converted into a South Water Street suburban station. Systems of double crossovers were installed near the north ends of the two pairs of intermediate tracks to permit the quick release of inbound engines.

The old Randolph St.-S. Water St. Suburban terminal was abandoned in 1926 in connection with the program of suburban electrification and work started on the new suburban terminal which progressed through several construction stages until the station as it now exists, was opened to service in 1931 (Note 2.)

Slide 17. Van Buren St. Octagonal Suburban station.

Prior to the opening of the 1893 Fair the suburban business had been served at Van Buren Street by the octagonal station building approximately 25 ft. in diameter built in 1879 in the park just west of the right of way.

Slide 18 Grant Park with Van Buren St. Station in foreground.

The tracks, platforms and surface of the park were all at the same level and Lake Michigan joined the right of way on the east. To provide adequate service to the fair grounds two independent express tracks were built on the east side of the right of way between Van Buren Street and the fair grounds.

Slide 19. Van Buren St. Platforms on east side of right of way.

Adequate platforms and station facilities, reached by an overhead bridge crossing the right of way, were constructed on the lake shore at Van Buren Street.

Slide 20. Filling in Park North of Twelfth Street.

In 1896 the Illinois Central began carrying out the provisions of the ordinance of October 21, 1895 which resulted in the depression of its tracks, the construction of retaining walls on both sides of its right of way between Randolph Street and Twelfth Street, the construction of viaducts across the tracks, the filling in of the park to elevation 22 immediately west of the right of way and the construction of the present Van Buren Street suburban station 50 ft. x 300 ft. under the surface of the park.

Slide 21. Van Buren Street Station and Viaduct.

The station was completed in 1897. Entrance to the station was by means of a ramp from the east side of Michigan Avenue. In 1925 the Van Buren Street subway was placed in service which gives access to the station without crossing Michigan Avenue traffic.

Slide 22. Trestle and Locomotive in Lake North of Twelfth Street.

The three next pictures show by contrast the tremendous transformation which has taken place on the Lake Front since 1853 when the first teapot locomotive traversed the trestle which had been driven in Lake Michigan.

Slide 23. Present Lake Front looking North from 18th Street.

The terminal facilities built on land rescued from the lake in the very shadow of old Fort Dearborn.

Slide 24. Present Lake Front looking South.

Thus it is seen that since 1852 the Lake Front has played, is still playing, and is probably destined to play a major part in the passenger terminal problem of Chicago.

NOTE 1. See discussion by C. H. Mottier "Steam Railroad Suburban transportation in Chicago" *Journal of the Western Society of Engineers*, Vol. 29, p. 132.

NOTE 2. See "New Suburban Terminal In Use" *Illinois Central Magazine*, Dec. 1931, p. 5.

The Fall River Line Steamboat Express

WEDNESDAY, May 19th, 1937 will mark the 90th anniversary of the establishment of this famous train for it was on Wednesday, May 19th, 1847, that the first trip was made from the old Kneeland Street Station, Boston. The oldest English train is the "Flying Scotsman" on the London & Northeastern Ry., first trip on August 8, 1850. Thus the "Fall River Line Steamboat Express" is the oldest regular scheduled train in the United States and probably in the World.

Since 1847 there have been four changes in the route of this train from Boston to Fall River Wharf:

1 May 19, 1847-Sept. 24, 1866 via South Braintree and Middleboro.
2 Sept. 24, 1866-June 16, 1890 via South Braintree and Randolph.
3 June 16, 1890-Dec. 18, 1932 via Canton.
4 Dec. 18, 1932 to date via Canton and Myricks.

The train has left Boston from three different terminals:

1 Kneeland St. Station—May 19, 1847-June 16, 1890.
2 Park Square Station—June 16, 1890-Sept. 10, 1899.
3 South Station—Sept. 10, 1899 to date.

The original time of departure was 5:00 P. M. In 1853 it was changed to 5:30 P. M. and on Aug. 2, 1875 it was changed to 6:00 P. M. Except for short periods during the Spanish and World Wars and during the so-called daylight saving period, it has left at 6:00 P. M.

Old Colony locomotives "Boston", "Middleboro", "Hudson", 1st "Pilgrim", "King Philip", "Old Colony", "Royal Turner", "Gov. Andrew", "Falmouth", "Plymouth Rock", 2nd "Pilgrim", "Dorchester" and Nos. 132, 147, 229, 232, 235 and 256 have pulled this train.

Engineers Henry Waldron, John Lufkin, William Lufkin, Charles Hastings, Samuel E. Decrow, John W. Leighton, John C. Westgate, John H. Barton, Charles R. Sawyer, Sturgis Baxter, George C. Dustin and in later years S. Gotham, J. E. Williamson and R. Creighton have run this train.

Charles P. Stickney is said to have been the first Conductor. He was followed by Thomas J. Claflin, Asa R. Porter, W. W. Sampson, Charles Tower, Charles B. Wales, William H. Warren, John H. Garland, M. F. Kent and E. E. Meacham. Asa R. Porter, from 1864 to 1896, for 32 years was the Conductor longest in its service and much of the success of this route was due to his wide spread popularity and unfailing courtesy.

On April 17, 1861, the 4th Massachusetts Infantry left Boston from the Old Colony Depot for New York. This was the first regiment to leave this state for the War to be followed by many thousands of soldiers that were carried over this route.

At the close of the war English coaches were placed on this train through the efforts of Joseph Holmes, son of President Alexander Holmes. They were soon succeeded by parlor cars and the "Pilgrim" and "Puritan" were assigned to this train for years. Pullman cars were used about 1891 and the "Violet" and "Pansy" were assigned to this run.

Every known successful device for the safety and comfort of its passengers was applied to this train. It was one of the first to be equipped with the air brake on the Old Colony R. R. in the seventies. Vestibuled coaches were built new for this train in 1890 and they were equipped with the Pintsch gas light. Steam heat was first installed in 1889 and Prof. Agassiz of Harvard, who was interested in the experiment, frequently rode the engine to Fall River with Engineer John C. Westgate. Automatic couplers were applied early to this train. On June 10, 1922, the New Haven placed combination 6007, coaches 8082, 8083, 8084 and 8090 with the Parlor Car "Dighton" on this train. The coaches were lettered "Fall River Line." In 1931 De-luxe steel coaches were assigned to this run and they are in service to date.

Thus, for ninety years we have witnessed the steady growth and improvement in motive power and equipment on what is probably the oldest and one of the most famous trains in the world.

R. & L. H. S. Negatives

The Society has acquired the following negatives:

Neg. #					
209	Missouri Pacific	9446	0-6-0	Baldwin	1907
210	Missouri Pacific	1158	4-6-2	Brooks	1927
211	Missouri Pacific	5342	4-8-2	A. L. Co.	1930
212	St. Louis & San Francisco	3740	0-6-0	Baldwin	1910
213	St. Louis & San Francisco	1297	2-8-0	Badwin	1910
214	St. Louis & San Francisco	25	2-10-2	Baldwin	1917
215	St. Louis & San Francisco	4026	2-8-2	Lima	1919
216	Chicago & Eastern Illinois	1011	4-6-2	Baldwin	1911
217	Chicago Burlington & Quincy	2591	4-4-2	Rogers	1903
218	Chicago Burlington & Quincy	2811	4-6-2	Baldwin	1906
219	Chicago Burlington & Quincy	2944	4-6-2	Baldwin	1910
220	St. Louis South-Western	584	2-8-0	Baldwin	1916
221	Louisville & Nashville	2060	0-6-0	Baldwin	1903
222	Baltimore & Ohio	4554	2-8-2	Baldwin	1918
223	St. Louis & San Francisco	1329	2-8-0	Schenectady	1912

The above negatives are 3¼ x 5½ in size. Prints from any of the above will be furnished for 10c each. Orders should be addressed to MR. HAROLD S. WALKER, Ass't Sec'y, P. O. Box #65, Beach Bluff, Massachusetts.

Worth Reading

(Compiled by ELIZABETH O. CULLEN, *Reference Librarian*, Bureau of Railway Economics, Association of American Railroads, Washington, D. C.)

BOOKS AND PAMPHLETS

Brotherhood of Railroad Trainmen, With Special Reference to the Life of Alexander F. Whitney, by Walter F. McCaleb. 273 pp. Illustrations. New York, Albert & Charles Boni. "In order properly to tell the story of the Brotherhood of Railroad Trainmen, it is necessary to trace back through the times . . .It is not often that the life of an individual epitomizes the story of an organization and reflects the essentials of its era . . . " Introduction, p. xiii.

The Cape-To-Cairo Dream—A Study in British Imperialism, by Lois A. C. Raphael. 515 pp. Illustrations, Maps, including "Cape-to-Cairo Railway System and Lateral Lines, 1936," p. 399. New York, 1936. Thesis [Ph.D.] Columbia University.

A History of the Southern Railway Compiled from Various Sources, by C. F. Dendy Marshall. 708 pp. Illustrations, partly in color. Fold. plans, Maps. London, England, The Southern Railway Company.

"The Largest Railroad Library in the United States," by Edmund Arthur Freeman. 11 mimeo. pp. Washington, D. C., Bureau of Railway Economics, Association of American Railroads. Address to Railroad Enthusiasts, Washington, D. C., Dec. 12, 1936.

Parade of Modern High-Speed Diesel-Electric Trains, cover-title, 12, 1 pp. Illustrated. Schenectady, N. Y., General Electric Company.

Passenger and Freight Stations on The Delaware and Hudson, compiled by H. S. Clarke. 360 pp. Illustrated. Albany, N. Y., The Delaware and Hudson. Brief history of each city, town, and village, with pictures of stations at various periods.

Report of Mechanical Advisory Committee to the Federal Coordinator of Transportation: Motive Power for Steam Railroads; Electrification of Steam Railroads; Freight Cars; Freight Transport Equipment; Passenger Cars. 680 pp. Illustrations, Diagrams. [Chicago? 1936] L. K. Sillcox, chairman; F. W. Hankins, F. H. Hardin, John Purcell, C. J. Bodemer, and W. J. Patterson, members of committee.

Safety in Early American Railway Operation 1853-1871, by L. K. Sillcox. 21 pp. [New York, The Newcomen Society, American Branch] Address delivered before the American Newcomen, Nov. 17, 1936, at New York, during a railway history meeting of the Society.

Some Comments on American Railroads and Their Development, cover-title, 15 pp. Chicago, Chicago, & Eastern Illinois Railway Co. "Note:—An astonishingly large number of inquiries come in, almost

daily, for information about railroads . . . hence this booklet. Extra copies can be had, or will be mailed to address sent in or handed to any Train Attendant." *Cover.*

The Story of Bridges, by Archibald Black. 226 pp. Illustrated. New York, London, Whittlesey house, McGraw-Hill Book Co., Inc. "First edition". "The Influence of Railroads Upon Bridges" pp. 52-56.

Two Decades of Transportation, by C. F. Duncan. 13 mimeo. pp. [San Francisco? Pacific Railway Club] Address to Pacific Railway Club, San Francisco, California, March 11, 1937, at celebration of 20th anniversary of the club. Will be printed in the club's Proceedings.

The Wabash Railway in Missouri 1855-1936—Souvenir of Inspection of New Wabash Bridge Over Missouri River at St. Charles, Missouri, October 29, 1936. Perpetuating the Route of the Historic Old Trails 1772-1855-1936. cover-title, [32] pp. Illustrations, Maps. St. Louis, Mo., Wabash Railway Company.

PERIODICAL ARTICLES

Baghdad to Damascus—New Sleeper Bus for Desert Travel." . . . the newest form of transportation to replace the camel . . . " Illustrated. Operated by Nairn Transport Co., Ltd. Diesel Progress, March 1937, pp. 26-27.

London to Paris—In Bed, by E. P. Leigh-Bennett. " . . . After about a month of this revolutionary method of de luxe railway transport, everyone will accept it as a matter of course, and it will be difficult to persuade the sleepy and bored passenger in the wagon-lit that almost-miracles were performed to give him this novel comfort. So now is my time, or never . . . " p. 2. Over the Points, (Southern Railway, England), September 1936, pp. 1-20. *See also: Railway Car Ferries*, by E. E. R. Tratman, in this list, and an account of inauguration of services in Railway Gazette, London, October 2, 1936, pp. 514-515.

Notes on Locomotive Testing with a Glance at History, by Lawford Fry. Railway Club of Pittsburgh, Official Proceedings, December 17, 1936, pp. 26-41, with discussion pp. 41-32.

Railway Car Ferries: American and Foreign, by E. E. R. Tratman. Illustrated. " . . . There is no attempt to include each and every car-ferry line in this paper, but it is intended to show something of the history, development and utilization of this special method of railway transportation, with the various conditions encountered . . . " p. 1. American Railway Engineering Association Bulletin No. 387, July 1936, pp. 1-55.

Railway Development and National Salvation, by Chiang Kai-Shek. Translation of his address to Railway Training Class, Loyang Military Academy. Quarterly Review of Chinese Railways, Nanking, China, January 1, 1937, pp. 1-13.

Recent Advances in Steam Equipment, by Frederick J. Prior. Illustrated. "The Steamotive" pp. 171-173. "Advent of Turbo Injector" pp. 173-174. Locomotive Engineers Journal, March 1937, pp. 171-174.

Recent Developments in European Railroad Motive Power, by A. I. Lipetz. Illustrations, charts, and diagrams. Engineering Journal, Canada, February 1937, pp. 51-63.

Research Results in Railway Transport, by L. W. Wallace. New England Railroad Club Proceedings, February 9, 1937, pp. 216-228. Discussion pp. 229-237.

This Is Our Story, by Robert S. Henry. " . . . As a matter of fact, there has been as much progress in rail transportation in the past twenty or thirty years as there has been in any like period in any industry in the history of this country. It has not been spectacular progress. We have not been very good showmen. We have not told people very much about what we are doing. The ordinary man who thinks that all big engines are Moguls does not see it. It has been a revolution, a revolution affecting the very basis of his daily life, but the ordinary citizen pays it the very high tribute of rather taking it for granted . . . " p. 13. Western Railway Club Official Proceedings, February 1937, pp. 11-18.

Thomas A. Edison Night. "What the Railroads Have Done For Edison", by C. S. Williams, Jr., pp. 267-268. "Human Interest Slants on Thomas A. Edison", by Nelson C. Durand, pp. 269-272. "Thomas A. Edison's Contribution to Signaling", by R. E. Trout, pp. 273-276. "Thomas A. Edison's Hardest Invention", by George E. Stringfellow, pp. 277-278. New York Railroad Club Official Proceedings, November 1936.

Transportation Today. "This Age of Transportation" p. 68. "The Role of the Automobile", by Walter J. Chrysler, pp. 69-71. "Down to the Sea", by Kermit Roosevelt, pp. 73-76. "The Rise of Air Transportation", by Reginald M. Cleveland, pp. 78-80. "Progress on Rails", by J. J. Pelley, pp. 81-83. "Highways Up-to-Date", by Alfred H. Swayne, pp. 86-88. "Twelve Years of Motor Coaches", by I. B. Babcock, pp. 89-91. "After Cars Come Trailers", by Philip H. Smith, pp. 94-96.

New Books

THE RAILWAY MANIA AND ITS AFTERMATH, 1845-1852. By Henry Grote Lewin, B.A. (Cantab.). 483 pages, 8⅜ by 5⅜ with 13 maps, 15 tables and graph. Bound in cloth. Published by The Railway Gazette, 33 Tothill St., Westminster, S. W. 1, London, England. Price 12 shillings net.

One hundred years ago the railways in England were beginning to take shape. Development was slow and hesitant but the first railway boom, as recorded in Mr. Lewin's book—"Early British Railways" was about to take place.

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